NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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JOEL NOURSE, PROPRIETOR. OFFICE...34 MERCHANTS ROW. SIMON BROWN, EDITOR. FRED'K HOLBROOK, } ASSOCIATE HENRY F. FRENCH, } EDITORS.

CALENDAR FOR APRIL.

'Tis the glorious Spring, as she passes along,
With her eye of light and her lip of song,
While she steals in peace o'er the green earth's breast;
While the streams spring out from their icy rest,
The buds bend low to the breezes' sigh,
And their breath goes forth to the scented sky;
Where the fields look fresh in their sweet repose,
And the young dews sleep on the new-born rose.

APRIL ushers in the round of MONTHS in which the farmer finds the duties of his occupation the most pressing.—The ice and snow has mainly disappeared, cold winds are tempered by blowing in to us from milder regions, and the earth, warmed and softened by longer visits from the sun, unlocks itself and grows light, and porous and genial, inviting the husbandman to scatter his seed in generous hope, and wait in the same spirit for the fruition of the Harvest,—cultivating in the meantime with diligent and assiduous care.

In sunny and sheltered places, the earth assumes her wonted green, and fresh flowers unfold themselves, look out into the peaceful glen where they were born, bathe in the warm rays of the sun, and shed their rich fragrance all around the place of their nativity. And though all alone, they bud and bloom, and exhale their sweet odors, and perform all their duty, just as precisely as though cultivated and tended with unremitting care, in a well designed and expensive garden.

As the sun takes a broader sweep over the earth, its rays penetrate the soil, impart unusual warmth and cause free evaporation; the cold surface water is thus taken up and scattered abroad, returning in gentle rains filled with the elements of fertility which they have sifted from the atmosphere, and which now find their way down the light and porous soil to supply the roots of plants which are about ready to commence their new work for the year. Vegetable life is reanimated, and shows returning signs of vigor and activity everywhere. The buds are swollen, and the tree tops thickened up long before leaves or blossoms have shown themselves.

And so it is in the animal kingdom. The birds, our last summer friends, begin to return; the Warbling Sparrow began his cheerful songs in March, singing all through the middle of the day in the piles of brush, and gathering its insect food from the rough bark of the wood. The Blue Jay screams from the tall elm, while the Crow, poised on the topmost shoot of a hundred foot pine, calls to his fellows in the distant wood, to come and partake with him of a breakfast which he has just discovered. The Bluebird, every morning, looks into the boxes in the garden, and seems to take into grave consideration the expediency of domiciliating herself another summer in the old quarters,—while the Robin flits from tree to tree, lifting a straw from this old nest and a twig from that, and then pouncing upon some hapless worm that shows its head above the surface for a moment's sun.

Mr. Beecher has been a close observer of the varying seasons, and makes a capital application of what he has seen. He says:—

"APRIL! The singing month. Many voices of many birds call for resurrection over the graves of flowers, and they come forth. Go, see what they have lost. What have ice and snow, and storm done unto them? How did they fall into the earth, stripped and bare? How do they come forth opening and glorified? Is it, then, so fearful a thing to be in the grave?

"In its wild career, shaking and scourged of

storms through its orbit, the earth has scattered away no treasures. The Hand that governs in APRIL governed in January. You have not lost what God has only hidden. You lose nothing in struggle, in trial, in bitter distress. If called to shed thy joys as trees their leaves; if the affection be driven back into the heart, as the life of flowers to their roots, yet be patient. Thou shalt lift up thy leaf-colored boughs again. Thou shalt shoot forth from thy roots new flowers. So be patient. Wait. When it is February, APRIL is not far off. Secretly the plants love each other."

APRIL is, in a great degree, *the Month of preparation.* Plans not entered upon and started now, will rarely come to maturity. All the work of the planting season should be mapped out and kept constantly in view, for *working by a plan* is as important to the farmer as to the man who is to build your house. The work may be done without a plan, but the uncertainties, changes and alterations incident to such a course, are anything but comfortable and economical. As a general rule the farmer has not been accustomed to anything like a rigid plan, and it may at first seem an irksome and unnecessary restraint to have one; but when he enters upon his field, and finds at a glance just how much land he wishes to plow, how deep, and there is no delay as to whether he shall back furrow or go round it; or, if he is to underdrain a piece, and he knows just where to strike when the workmen enter the field, he will realize a satisfaction that he could not without a plan, and his work will go on more systematically and *profitably.*

Give the *Garden* especial attention in APRIL. Some one has said that *the garden is an index of the mind*, and we think has said correctly, "that if you desire to judge of the character of a man's mind, *go into his garden.* Solomon considered a slovenly vineyard or garden good evidence of a slovenly mind, or a mind void of understanding. Depend upon it, when you see a man's fields and gardens laid out with good order, and taste, and notice the neatness of their cultivation, *that* man's mind is like a well arranged library. A man's plans will appear in his operations. His theory may be judged by his practice."

But the farmer *cannot afford* to be without a garden; he should draw large supplies from such a source for his table, especially during the summer and autumnal months. Fresh vegetables, seasoned with the corn-fed pork from his barrel, and delicious fruits, of varied kinds, with sweet cream from the dairy-room, are some of the compensations to the farmer for his isolated condition,—and then green fields, cerulean skies, babbling brooks, singing birds, lowing herds and flourishing gardens, surround him with more charms and real advantages than cities can possibly confer.

But we cannot dwell longer on the attractions of Spring. It calls to us from every side—from soft airs, opening buds and expanding flowers—from the springing vegetation, the new life of animals, returning birds, and the new mental charms which every returning spring unfolds.

> I come! I come! Ye have called me long,
> I come o'er the mountains with light and song!
> Ye may trace my step o'er the wakening earth,
> By the winds which tell of the violet's birth,
> By the primrose stars in the shadowy grass,
> By the green leaves opening as I pass.
>
> *Mrs. Hemans.*

SUGGESTIONS FOR APRIL.

Put *Fences* in order.

Head in *Peach* trees.

See that all your *Drains* are clear.

Do not ruin your trees by *pruning* them this month. Wait till the middle of June.

Put the *Door-Yard* in perfect order.

Get the small grains in early—but do not *plow* until the soil is ready for it; better that the grain should be a little late.

Transplant fruit trees as soon as the frost is out and the ground is warm and mellow. One dozen good trees, well set and well tended, will yield more profit within twenty years, than one hundred trees badly set and indifferently tended.

Set an *Asparagus bed* by all means.

Do not let the cattle run upon the mowing lands in the spring.

In some sheltered and convenient spot, have a good *Kitchen Garden*, where you can go for all sorts of vegetables, and some of the small fruits, nothing will be more economical, and few things will add more to the comfort and happiness of the family.

In a selected place in this garden sow a variety of *Flower Seeds*, and allow the children to pluck the flowers to carry to school, or to look at as they go to church Sunday morning. Set them in a dish or glass filled with cold water, and see how pleasant they will make the sitting-room in a hot afternoon! Or place them on a stand in the sick chamber, to interest and refresh the sufferer.

Purchase a *short-toothed rake* to use in the garden, and you will soon see how easy it is to prepare a bed for the smallest seeds when you have the right implement in your hands.

Finally, whenever the soil is ready for you, be ready to strike the blow that is needed, and have every thing done decently and in order.

☞ INFORMATION BY LETTER.—We are constantly receiving letters requesting us to give information upon business matters, *by letter.* If

the reader will but reflect a moment, he will see how impossible it is for us to answer business letters from a circle of friends so extended as is that of the *Farmer*. We have two or three such before us now, and have every disposition to reply to them, but it would require some hours to collect the information which they require.

For the New England Farmer.

GRAFTING THE GRAPE VINE.

MR. EDITOR:—*Dear Sir*—I noticed a communication in the *Farmer* signed "L——, Bangor," inquiring the best mode of grafting the grape vine; and as I have not noticed any reply to it, I venture to state my experience, although if your correspondent be, as I suppose him to be, Col. HENRY LITTLE, of Bangor, one of the best horticulturists in New England, I might well be doubtful of my ability to give him anything new on the subject.

I have grafted the grape in the usual mode of cleft grafting, and by boring holes in the stock into which the scions were fitted, and succeeded with both modes—with occasional failures—if the grafting was done at the proper season. This is, perhaps, the most important consideration, for if the scions are set too early, the great rush of sap will drown the scions, so that canker and decay ensues. To avoid this, wait until the vine to be grafted has pushed its first leaves to the size of a dime, or a little more, when the sap will be inspissated enough to form granulation essential to the union of stock and graft. To keep the graft from pushing its buds, bury it in the ground in a cool northern exposure, for if the graft begins to grow before it is put into the stock, it is pretty sure to fail.

I have found the best mode of preparing the stock to be as follows; clear away the earth from the stem of the vine, and with a sharp knife make a sloping cut, as in splice grafting, split the stock across the cut about one-third of the distance from the top; pare the scion as in apple grafting—but not too thin—and place it in the stock, so that the bark of both stock and scion correspond; cover with a good body of grafting clay, pressed close to the wood, and press the earth carefully but firmly around, leaving but one eye of the scion above the soil. It will still further ensure success if the scion is split, and one part inserted into the stock, while the other part is carried down over the scarped stock to the bark at the bottom; there should always be a bud at the base of the scion on the outside. This mode is much practiced in cherry grafting, and is probably familiar to your correspondent. Scions may be cut at any time before the sap begins to flow—they should have three or four eyes or buds, and if possible, a little of the two years' wood at the base of the cutting. I consider this necessary to success.

I have found it best, when it is practicable, to take up the vine to be grafted and plant again after grafting. If this is done, you may graft as soon as you can get your vines out of ground, and not one in a hundred will fail.

After all, I do not consider it profitable to graft the vine, unless you wish to cultivate a weak growing, but good grape, or a tender grape, which you cannot succeed with upon its own root. In such cases, you can sometimes succeed by grafting on hardy and vigorous vines, but the old root is apt to throw up suckers, and, if you do not happen to observe them, they will rob the graft of its nourishment, and before you are aware of it, it dies, and you have got only your old vine again.

I entertain the belief, but have made no experiments to demonstrate it, that the stock of a vine which ripens its fruit early will quicken the ripening of a later kind grafted upon it. If this be true, it would be a resource in cold latitudes where fine grapes cannot be grown, and would repay almost any trouble in grafting.

I have only to add that if what I have written above should be of any service to your correspondent, it will give much pleasure to

Yours truly, E. W. BULL.

Concord, Mass., March, 1859.

For the New England Farmer.

PRESERVATION OF MANURES.

When I was a boy, my father and several of his neighbors, who were regarded as good farmers, used to keep the droppings of their cattle as thrown out of the barn windows, where the rain fell upon them from the eaves, and worked and soaked them so completely as to remove nearly all the stink. But a different practice has grown up on these farms within the last twenty years; and nearly all of these owners let these droppings fall into cellars, where they are intermingled with muck gathered from meadows and swamps, and worked over by swine. In this way the quantity of manure is increased three-fold, and although it smells a little when handled, this smell soon ceases to be oppressive, because it is believed to be a valuable ingredient of the manure. I think it is called in my children's schoolbooks, ammonia; but whatever it may be, I think the manure none the worse for it. Whoever by the farm would thrive, must not be afraid of soiling his hands or his trousers. I should just as soon think of meeting a sweet-scented currier who worked daily in his shop, as a clean farmer. No man should be above his business, and that business which emits the strongest stink is likely to produce the cleanest chink of dollars in the end.

AN OLD SCHOOL FARMER.

FARM AGENCY.—The Hon. B. V. FRENCH has opened an office at 51 and 52 North Market Street, Boston, for the purchase and sale of Farms and Farm Stock, either of Milch Cows, Grade or Pure Blood Durhams, Devons, Herefords, Ayrshires, or Jerseys. Oxen, Sheep, Swine, Agricultural Implements, Seeds, and all that is required to equip a farm or garden, or anything in relation to rural affairs.

Mr. FRENCH has had the most ample experience in these matters, and our friends may find it to their advantage to secure his aid in their operations.

For the New England Farmer.

THE EDUCATION OF FARMERS---COUNTY SOCIETIES---FARMERS' CLUBS.

MY DEAR SIR:—I am much gratified with the remarks made at the second Legislative Agricultural Meeting, held on the evening of 17th inst. inasmuch as it appears to me that the second resolve, introduced in that meeting, if it should be carried out, will do more than any former move has accomplished towards the advancement of terraculture in our Commonwealth. In saying this, however, I will in no way censure or condemn any previous move in the matter. Our agricultural societies have accomplished much, introducing better animals and better systems of cultivation. But have their good influences been as general as the necessities of farmers require? In many of our counties, from being in fixed localities, they have been inconvenient of access to those residing in remote parts. There are, no doubt, many first-class farmers in the State who are deterred from exhibiting the objects of their successful culture from this cause. In the present arrangement, this evil cannot be obviated. Those living in the vicinity of fair grounds can well afford to take in their animals and products, and in this way the rewards and credits are, to a great extent, limited to a comparatively circumscribed area of territory, since the bounty of the State is scattered over a small territory. And yet we don't know that any one is to blame in the matter, further than that a bad management was made in the outset of the matter.

Now will not the people at large be more benefited if these annual fairs are made emigratory, travelling from the centre to remote parts of counties? and thus, instead of letting A, B and C bear off the prizes and honors, place them, occasionally where they shall have the journeying to perform to find competitors in D, E and F. This would awaken a more general competition.

Again, how large a proportion of the farmers in the State are connected with the agricultural societies? Probably not one in ten, and each of these has no doubt some good reason for non-membership. Inconvenience of locality may be one cause. Then another will say, that so much unfairness is used in distributing prizes. The former objection is, no doubt, a serious one. The latter should be met and controlled. Committees should be selected with great care, and then they are very liable to be deceived. But they or the society should watch carefully, in order that no deception is practised, and then, they cannot always detect it. We have heard of a pair of worsted stockings, a piece of diaper, another of flannel, being stereotyped articles for competition, and successful, too, as report said. Perhaps they were entered in the names of different individuals in different years; but would that alter the merits of the article? Now the society has a right to make a by-law allowing them to put a mark on such articles to make them known, if offered a second time, and the individual who offers them should be forever debarred from further competition.

But we have wandered from the main point—that is, that the bounty of the State, as it is applied to our agricultural societies, does not equally reach the merits or demands of the agricultural population. How shall the want be supplied? We have always been a warm advocate of clubs or town associations. We have known them to exist where they have been magic in their influence, extending it from the valley to the top of the mountains. This is what we like, and would we could see such associations in *every town*. Now cannot the State, in her acknowledged munificence, do something to effect this? A few years ago, she gave, on proper conditions a Webster or a Worcester dictionary to every school district in the State—a noble munificence, whose benefits reach all. Suppose she make one more offer to the people—from the people's money; that they will allow to each town in the Commonwealth that will establish and maintain an association for rural improvement, said association to hold stated meetings for discussions and lectures on subjects connected with its objects once in — weeks, and shall report its progress annually to the Secretary of the Board of Agriculture, the amount of $— annually, said amount to be applied to the establishing and maintaining an agricultural and mechanical library and museum for the benefit of said associations. When circumstances will permit, let a portion of this fund be appropriated to the introduction of seeds and plants.

Why would not such an arrangement come directly to the root of agricultural improvement, and prepare the way, at least, for a higher standard of agricultural education, which has received so much commendation for the last dozen years? The meetings and discussions would lead to deeper thought, closer observation and more profound research, and with suitable books at hand, earnest study would be applied to master their contents. The whole public, as well as the individual mind, would be brought into vigorous action. Young men would see that there was beauty and science in the old-fashioned and homely profession of their fathers, and no longer sigh to leave the pure air and ever-varying scenery of pastoral life, for the dependent, uncertain ties of other professions. Agriculture, as a profession, aye, and one of the learned professions, too, would begin to arise in its native dignity, and soon other and higher means of intellectual advancement would be demanded, to give it its proper position among the sciences of life.

We have no wish to detract from the merits or usefulness of any of our agricultural societies. But they have been the recipients of State bounty for a long time; so long that it seems as though they are old enough to stand and go alone. Cannot, then, a portion of the funds they are now receiving be appropriated to this new and general object, without seriously injuring their usefulness? Suppose the number of societies that receive funds from the State were reduced to one for each county, and this made migratory to the principal towns, and the amount now given to extra societies were divided on the proposed plan among towns? Would not the whole people be much more benefited than they now are? Or, if it is thought sacrilegious to cut off any of these societies, suppose the funds to each were reduced one-half, and the other half appropriated in the way suggested would not this put the liberality of the State in a more philanthropic and appreciable condition? An-

swer, ye wise men, who are the people's legislators, and for once try the experiment, and see if you do not return to your homes in a full consciousness of a duty nobly performed, and meet your constituents with countenances radiant with joy, uttering from the heart the pure salutation, "well done, ye good and true men."

Richmond, Jan. 24, 1859. W. BACON.

REMARKS. — Capital suggestions — we hope they will be put in practice. Town societies should meet for discussion as often as once a week, from the first of November to the first of April, five months. The association should be as thoroughly organized as is the legislature of the State, and all its business conducted with gravity and decorum. We feel quite confident that *premium paying* has done about all the good it is capable of accomplishing for the present.

STARCH—SUGAR—POTATO.

The embryo of plants receives its nourishment from the sugar contained in the seeds. This article is found in the seeds of all plants,—or rather exists in them in the form of starch, and is converted into sugar by the process of germination, and serves for the nourishment of the young plant.

Starch and sugar are composed of the same elements and in nearly the same proportion,—starch having an additional quantity of carbon. By the application of heat and moisture by which oxygen is absorbed, some of this element of starch is evolved, and it becomes sugar. This is the process in germination, and in the malting of barley. The skin or lower part of flowers, also contains starch, which is changed into sugar for the nourishment of the seeds.

Starch is very abundant in the potato; the tubers of this plant being in large part composed of it. The practice of nipping off the flower buds of potatoes has been frequently adopted by gardeners, which they considered had a tendency to increase the product. The effect of this practice is to check the demand of the growing flower for starch, and by thus preventing the exhaustion of the store of this ingredient, it will be accumulated in other parts, and principally deposited in the tuber, the growth of which will be increased proportionally.

The amount of starch increases regularly with the growth of the plant, and is in greatest abundance at its maturity. It remains about the same till the period when the seeds are beginning to germinate, or the young parts of the plant to grow, and is then converted into sugar. It has been found that 100 parts of potatoes contained in August, 10 lbs.; September, 14½ lbs.; November, 17 lbs.; March, 17 lbs.; April, 13¾ lbs.; May, 10 lbs.

From November to March, inclusive, the starch remains unchanged; and as it is the germination or change into sugar, by keeping in a moist place, that renders seeds unfit for planting, it would seem that the most proper time for spring planting of potatoes should be early in April. As at the time of sprouting of the tubers the starch becomes changed into sugar, it may be supposed that at that time of the year, that is, in May, they might be profitably used for the manufacture of sugar. We know not that any experiments have been made for that purpose.

For the New England Farmer.

ARE TURNIPS A PROFITABLE CROP?

MR. EDITOR:—Various opinions seem to prevail in relation to the turnip crop, and as I have read them from time to time, I am at last tempted to say a few words upon the subject of raising turnips. I have raised, of the various kinds of turnips, for forty-five years. I raise them now, where and when nothing else can be raised. I do not lay out a spot or patch of land for turnips where I can raise corn, for I do not believe they pay; or in other words, I do not believe them a profitable crop. I have never been able to get a good crop of anything after a crop of ruta bagas, and I should like to add to the many questions already put to "W. F. P.," by Mr. Emerson, whether he can show from experience or observation, that a crop of ruta bagas, on, say one acre of land, and three succeeding crops of corn and grass, is worth more than a four years crop—of corn, first, and three years of barley and grass? I do not care to confine him to the crops named which are to succeed the first year. But set acre by the side of acre; set down the expenses of labor and of manure, and show how much is gained by raising ruta bagas. I have raised five hundred bushels of Swedish turnips upon one-half acre, and that was an unprofitable crop to me, when compared with seventy-five bushels of corn to the acre by the side of it. The labor of feeding, any one can settle. I think there are great mistakes made in the estimations of the value of turnips in this part of the country. I admit, however, that when raised they are good feed for stock. The question I would like answered, is, when compared with other crops, are they worth raising?

OTIS BRIGHAM.

Westboro', Jan. 27, 1859.

DRUGGING ANIMALS.—Continual dosing animals is just as useless and injurious to them, as is the constant swallowing of drugs and poisonous compounds to the human system. It is all folly to allow your stables to become hospitals, and to smell and appear like an apothecary's shop. It is much more humane to shoot a horse, or knock an animal on the head at once, than to force down its throat doses of drugs whose quality of action you know little about, having the effect to create disease when it did not exist, and prolong suffering much beyond the time in which nature would herself effect a cure.—*American Stock Journal.*

For the New England Farmer.

AN AUTUMN LEAF.

[I was not intended by the writer of the following touching, truthful and expressive lines, that his name should appear with them. But we cannot consent to any separation. His little introductory note shows how the verses were born, and how they came to meet your eye. We envy the happiness of the person possessed of such a sense of the bountiful and beautiful works of the Creator, and such a power of clothing them with poetic language and feeling. Mr. CANNING is a true poet. His thoughts are not summoned for the occasion, but the occasion itself opens clearly before him, and presents its often minute, but wonderful accompaniments, which fill with tenderness and love, his glowing verses. His descriptions will inspire every one who has husked out corn in the open air, in a balmy autumnal day.]

GOV. BROWN,—*My Dear Sir*:—I took from my vest pocket today a bit of paper with the following lines pencilled thereon. They occurred to me while husking corn out-of-doors, on one of the glorious "*latter days*," last autumn. Thinking they may touch an answering chord in the minds of some of your readers, I take the liberty to write them out for the *Farmer*.

Yours a-field, J. D. CANNING.

Gill, Ms., January, 1859.

AN AUTUMNAL LEAF.

BY THE "PEASANT BARD."

How beautiful the picture is that nature spreads to day!
For autumn clothes her second-born in fanciful array;
And through the hazy lift the sun a softened splendor sends,
That wraps the scene in quietude,—a sweet enchantment lends.

How like to elves in elfin land yon troop of children go,
Turning the hill-side leaves to find the bright brown nut below!
And every treasure brings a shout, and brings all there to see,
Just as the gust scuds, eddying round, the honors of the tree.

The jay, that in the summer days was scarcely seen at all,
Flits frequent through the pictured bush, and startles with its call,
And seems to warn its feathered mates, with quick and earnest cries,
Beware of Winter's biting breath, and bitter brumal skies!

The squirrel on the mossy log, within the hollow wood,
Clucks loud to tell that he's secured a store of winter food;
His kinsman, clad in "hoddin gray," the hunter fain would see,
With tiny claws goes scratching up the rough, nut-bearing tree.

The duck, within the dented shore, where spreads the mimic bay,
Sits silent, motionless, save when a ripple rounds away;
And seems to watch the colored tints reflected from below,
Or list *Dominion's* coming step, so stealthy, and so slow!

I see the waters of the brook, that in the summer time
Went singing onward down the vale, a kind of "catch-me" chime,—
Now seem to linger by the bank, and linger by the brae,
As if all loth, from such a scene, to run in haste away.

Can fairy land,—can "land of dreams," such scene enchanting show?
So soft the heavens smile above! so glad the earth below!
As if millennial angels had their banners bright unfurled,
And PEACE, dear PEACE! her censer swung in sweetness o'er the world!

Why call this world "a wilderness"—a mournful "vale of tears?"
I think it *beautiful*; and for a better have my fears;
My heart in thankfulness dissolves that I'm alive to see
The beauties autumn shadows forth, that by-and-by may be.

October 19, 1858.

HORSES' COATS.—Lately going to the country to spend a few weeks with a friend of mine, I drove a very handsome horse, and a good one—but he was always annoyed about his coat. It was more like bristles than a horse's smooth skin, and all the grooming he could get 'wouldn't do it no good.' My friend, who is a great horse-breeder and fancier, made me try giving him a few raw carrots every day to eat out of my hand, saying that he would have a good smooth coat in three weeks,—and he was right, for in that time my horse had a beautiful, sleek, glossy coat, and all from eating a few raw carrots daily. He tells me it is infallible.—*Cor. Porter's Spirit of the Times.*

ADAMS' PATENT WIRE SCREENS.

We were pleased this morning to see the operation of Mr. *Sanford Adams'* Wire Screens for separating the various grains, coffee, rice, beans, &c. He took about a pint each of three sizes of white beans, rye, buckwheat, coffee, and caraway seed, mixed them thoroughly in a peck measure, turned them into his machine, shook them rapidly for a few moments and handed them to us, each separated from the others. The inventor states that these screens will not only sort and sprout potatoes, clean and "size out" beans and peas, but will separate buckwheat from oats, rye from barley or wheat, and from all foul seed.

The machine works on eight-cornered rollers or cogs, and discharges the mixed contents into separate barrels at the same time, each kind finding its respective size. A person acquainted with the business will sort from seventy-five to one hundred bushels of grain per day.

The machine is cheap, small, compact, and so light that a man may carry it under his arm. Any farmer raising much of this kind of produce, would not fail to save all its cost in two or three years—indeed, we hear of one person who used the machine in the city last year, and saved refuse grain and small seeds enough to bring him $25,00, which was freighted back fifty miles into the country, and used for fattening mutton! When this foul and broken seed was extracted from the good, it increased the value of the latter some fifteen per cent. Such a process is worth going through.

This is one of those simple and efficient contrivances that commend themselves to all upon once witnessing what they will do—and we therefore think well of it.

MANAGEMENT OF THE BARN.

Let the utmost neatness be observed in the management of the barn. No more hay or other fodder should be thrown on the floor at once than is requisite to supply one feed. By throwing large quantities from the mows or scaffoldings, there is an unavoidable loss from the drying of the fibre, which renders it less palatable to the animals, as well as less nutritious. Sweeping the floor daily promotes cleanliness, and conduces to the health and consequently the comfort of animals. The sweeping of the floors should be preserved, as this is the easiest way to save some

of the most valuable grass seeds. The mangers and cribs should be daily cleaned out and frequently washed. "What is the use of being so very particular? I never washed my cattle's manger," said Solomon Shiftless. Very well, Solomon, your cows probably have as keen an appetite for their fodder as you would have if your wife gave you the same plate unwashed for a month from which to take your meals.—*Rural Intelligencer.*

For the New England Farmer.

LEGISLATION—LAND DRAINAGE COMPANIES.

BY H. F. FRENCH, EXETER, N. H.

Under this Act, (namely, the Rye and Derwent Drainage Act,) it became necessary for the Commissioners to estimate the comparative cost of steam and water power, in order to carry out their idea of giving to the mill-owners a steam-power equivalent to their water-power.

"As the greater part of the water-power was employed on corn and flour-mills, upon those the calculations were chiefly based. It was generally admitted to be very near the truth that to turn a pair of flour-mill-stones properly, requires a power equal to that of two and a half horses, or on an average twenty horses' power to turn and work a mill of eight pairs of stones," and "that the total cost of a twenty-horse steam-engine, with all its appliances, would be 1000*l.*, or 50*l.* per horse-power."

Calculations for the maintenance of the steam-power are also given, but this depends so much on local circumstances that English estimates would be of little value.

The arrangements in this case, with the mill-owners, were made by contract and not by force of any arbitrary power, and the success of the enterprise, in the drainage of the lands, the prevention of damage by floods especially in hay and harvest time, and in the improvement of the health of vegetation as well as of man and animals, is said to be strikingly manifest.

This Act provides for a "water-bailiff," whose duty it is to inspect the rivers, streams, water-courses, &c., and enforce the due maintenance of the banks and the uninterrupted discharge of the waters at all times.

Compulsory Outfalls.—It often happens, especially in New England, where farms are small and the country is broken, that an owner of valuable lands overcharged with water, perhaps a swamp or low meadow, or perhaps a field of upland lying nearly level, desires to drain his tract, but cannot find sufficient fall, without going upon the land of owners below. These adjacent owners may not appreciate the advantages of drainage, or their lands may not require it, or what is not unusual, they may, from various motives, good and evil, refuse to allow their land to be meddled with.

Now, without desiring to be understood as speaking judicially, we know of no authority of law, by which a land-owner may enter upon the territory of his neighbor for the purpose of draining his own land, and perhaps no such power should ever be conferred. All owners upon streams, great and small, have, however, the right to the natural flow of the water both above and below. Their neighbors below cannot obstruct a stream so as to flow back the water on to or into the land above, and where artificial water-courses, as ditches and drains, have long been opened, the presumption would be that all persons benefited by them have the right to have them kept open.

Parliament is held to be omnipotent, and in the Act of 1847, known as *Lord Lincoln's* Act, its power is well illustrated, as is also the determination of the British nation that no trifling impediments shall hinder the progress of the great work of draining lands for agriculture. The Act, in effect, authorizes any person interested in draining his lands, to clear a passage through all obstructions, wherever it would be worth the expense of works and compensation.

Another provision of this Act authorizes proprietors or occupiers of land, injured through neglect of others, to maintain the banks, scour and cleanse the channels of existing drains, streams or water-courses, forming boundaries of such lands, or leading to the outfall, to enter after one month's notice and neglect, and "execute all necessary works for maintaining or repairing such banks, or cleansing or scouring such channels." The Act also provides that the neglectful neighbor shall contribute his share of the expense of such repairs and labor.

It should be observed that this provision only applies to *existing* water-courses and ditches, and not to the opening, or the widening or straightening or deepening of new ones. Its remedies are similar to those in most of the States for neglect of adjacent owners to repair the division fences.

It is not the province of the author to decide what may properly be done within the authority of different States, in aid of public or private drainage enterprises. The State Legislatures are not, like Parliament, omnipotent. They are limited by their written constitutions. Perhaps no better criterion of power with respect to compelling contribution by persons benefited, to the cost of drainage, and of interfering with individual rights for public or private advantage, can be found than the exercise of power in the cases of fences and of flowage.

If we may lawfully compel a person to fence

his land, to exclude the cattle of other persons, or if he neglect to fence, subject him to their depredations without indemnity, as is done in many States, or if we may compel him to contribute to the erection of division fences, of a given height, though he has no animal in the world to be shut in or out of his field, there would seem to be equal reason in compelling him to dig half of a division ditch, for the benefit of himself and neighbor.

If, again, as we have already hinted, the Legislature may authorize a Corporation to flow and inundate the land of an unwilling citizen, to raise a water-power for a cotton-mill, it must be a nice discrimination of powers that prohibits the same Legislature from authorizing the entry into lands of protesting mill-owners, or of an unknown or cross-grained proprietor, to open an outlet for a valuable health-giving system of drainage.

For the New England Farmer.

STEAM PLOW.

MR. EDITOR:—Your able and pleasing correspondent, Wilson Flagg, Esq., seems alarmed at the introduction of the "Steam Plow," should such a discovery be made. He repudiates the notion that the "Illinois State Board of Agriculture" should encourage the use of such a machine, which, in its tendency, would "extirpate the whole class of small farmers in the State." In support of this theory, he compares the hand-spinners and weavers, who should undertake to compete with the manufactories of Lowell and Lawrence.

His article (*Farmer*, Dec. 18,) in its length and breadth, I think is at variance with public sentiment, and I shall venture a few suggestions in relation to it.

If the steam plow should be introduced by "mammoth corporations" (of which there is little to fear,) we cannot see why it would bear unequally on "the small farmer." He has given us no idea of the cost of the apparatus, which may not be very expensive, in a small way, but the outlay of a good plowing team, and the expense of feeding, is by no means a small item with the farmer. Horse power has greatly relieved man, as applied to the mowing, reaping and threshing machines, rake, &c., but how vastly has steam annihilated the horse, yet the horse retains his former value and labor, and is dearer than formerly. This kind of "progress" is demanded by all enterprising people, and the growth of our country is their crowning happiness. I should regret to see it otherwise.

When the sewing machine was introduced, the needle women were in danger. Wailings and regrets were the outpourings of humanity—but Providence opens new sources of labor, the poor needle-woman receives her "loaves and fishes," and by industry and frugality I think she earns full wages, as I do not learn that they have been reduced.

Now what is to be feared from "farm associated capital?" Surely, the argument fails when "Lowell and Lawrence" are made prominent objects of comparison, with smaller establishments engaged in like manufactures. It is only necessary to refer your correspondent to the supremacy of individual success over them all around you. Stockholders in these mammoth corporations can doubtless give a negative reply.

But let us take a family of Shakers who would seem to present the most consolidated form of "association." Their thrift, skill, economy and integrity are unsurpassed. Does this mammoth corporation threaten destruction to the "pleasant old farm-house," the "delightful groups of trees," a state of "servitude" of families in the "grand manufactory of corn and vegetables?" Do those outside abutters suffer by this great Shaker corporation? Not at all. They never undersell. No form of corporation need frighten the industrious farmer, neither can they depreciate his products.

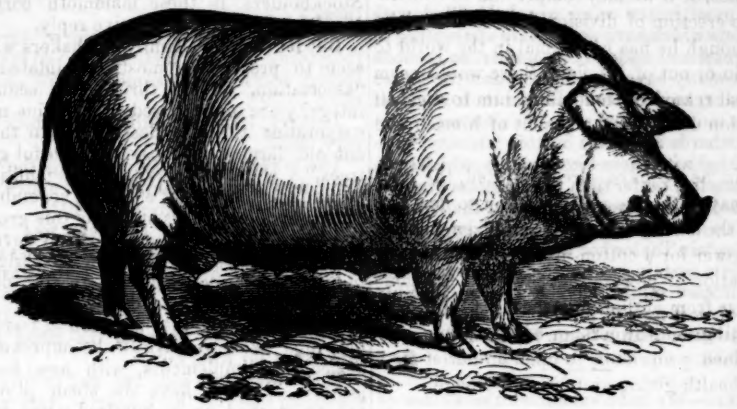
If there is a tedious operation in farming, it is plowing. Now we have all the improvements in agricultural implements, with new forces and powers. Shall we have the steam plow? If it can be worked on a hundred acres, it can be worked on twenty. Would it not revolutionize New England? Would it not improve the pasturing, enlarge the barns, increase cattle, sheep, horses, the dairy, the corn crop, the *wheat crop*, the most expensive and the most needful of all? Give them a "*steam plow*," a bounty of 12½ cts. on winter wheat, a generous bounty on a hundred bushels of corn, till it becomes a well established fact that New England can raise her bread, and your plowing will *tell at home* in your own pockets, and the coffers of your States.

Hang no clogs upon agricultural enterprises. Give them Legislative sanction and support to the utmost, and while we must admit the *plow to be the pioneer implement* of all farm operations, the basis of all hope, *let us add any power* that shall "speed the plow." HENRY POOR.

New York, 1859.

MOST PROFITABLE BREED OF SHEEP.—A Canada West farmer, writing on this question to the *Genesee Farmer*, says: "As far as my experience goes, the most profitable sheep *are of no breed*. Buy poor and inferior ewes (of the native stock, if possible,) cross them with the best Leicester or Southdown rams, according to their roughness and other qualities, and they will pay from 50 to 100 per cent. per annum, or more. This is simply taking advantage of the established maxim in breeding, that the first cross is the best. You thus obtain an increase in mutton of from 20 to 30 pounds, and an increase in wool of from 50 to 100 per cent., besides a great improvement in the quality of both."—*Country Gentleman.*

ATMOSPHERIC PHENOMENA.—A correspondent writing to us from Byson, Ill., states that some peculiar phenomena were witnessed in that place on the morning of the 4th inst., at 9 A. M., consisting of several rainbows intersecting one another, and at every intersecting point there was a bright spot resembling a miniature sun. These bows displayed all the prismatic colors, and were exceedingly beautiful. They continued for about three-quarters of an hour, and then disappeared. —*Scientific American.*



CHESTER COUNTY, PA., SOW.

The above is a fine representation of the Chester County Sow Mazurka, bred by THOMAS WOOD, Esq., of Penningtonville, Pennsylvania, and now owned by WILLIAM A. WHITE, of Lancaster, N. H. This breed is distinguished for large size, rapid growth, early maturity and great propensity to fatten; remarkable, also, for beauty and symmetry of form, and docile disposition. No part of the farm economy better deserves attention than that of swine, as they are *manufacturers* as well as producers. More attention ought to be given to breeds, so as to secure those that are symmetrical, of quiet dispositions, and that will gain the largest weight upon the smallest amount of food. See advertisement in another column.

For the New England Farmer.

CANKER WORMS.

Few persons are aware, perhaps, of the extent of the ravages made by the canker worm, and other insects, upon the orchards of New England. In Massachusets alone, there are estimated to be no less than one hundred different varieties of the class Geometræ, (to which the canker worm belongs,) according to T. W. Harris. The apple tree suffers most from these worms, but the cherry, the plum, lime and elm trees, are often the subjects of their devastating attacks. The numerous pomological societies which have sprung up within a short time are proofs of the increased interest which the culture of fruit is demanding from the farmers of New England; and when we consider the fact that 50,000 bbls. of apples were recently shipped from Boston in a single month, the importance of staying the pest which more than any other has hitherto made the profits of fruit growing insecure and hazardous, becomes sufficiently evident. It seems to be the inevitable result of civilization, that the birds, the beautiful feathered police of Nature, decrease, with the march of its improvements; and hence in proportion as the land becomes more cultivated, the insects, freed from their natural devourers, increase in proportion, and the fruit-grower, obliged to turn from one remedy to another, finds too often, now inadequate the contrivances of man are to effect the object.

In order to understand how to apply the true remedy, let us consider for a moment the habits of the canker worm. Though the greater number of these ascend the tree about the middle of March, they emerge from the ground during the open weather of every month of winter, and of these the largest proportion are females. Having reached some suitable crevice or twig on the tree, each female lays from 80 to 100 eggs, and covering them with a glue impervious to water, dies. In the month of June these eggs hatch, and the young canker worm soon destroy every green leaf on the tree. The great desideratum, it is plain, must be to prevent the worm from getting up the tree.

A contrivance of WM. W. TAYLOR, Esq., of South Dartmouth, meets the object better, in my opinion, than any contrivance hitherto devised by the ingenuity of man. It consists of a simple circular cup of iron, cast in two semi-circular sections, so as to be easily screwed tightly together, Between the cup and the tree, a packing is placed of sea-weed, straw, cotton waste or any other suitable material impervious to insects, but not so to water; over the cup is placed, at a distance of two inches, a screen, or roof projecting a little beyond the outer circumference. The cup is then filled with bitter water, which will not freeze in any temperature, and is delequescent, (absorbing moisture from the atmosphere.) It has also the advantage of being far cheaper than oil, or any of the substances heretofore used in contrivances

having the same object. I have had this invention of Captain Taylor's in practical operation for some time, and the results have been so highly satisfactory that I confidently recommend it to all fruit-growers as a perfect *vade mecum*.

The cups of bitter water are half filled with dead insects which have perished in attempting to swim across, and under them numerous cocoons show that many have found discretion the better part of valor, having been foiled in their attempts to reach a more elevated state of existence. Numerous orchards and trees in this vicinity have been islanded with these bitter waters, which have proved, thus far, better than the sleepless dragons which guarded the famous gardens of the Hesperides, and I am of opinion that if this impassable circle of Captain Taylor had been extended around the tree, in a certain garden that we have read of, the human race might have been considerably better off than it now is, and the world would be something better than a home for the fallen.

Feb., 1859. R.

REMARKS.—We have examined the device of Capt. Taylor to prevent the ascent of canker worms, and should think it might prove effectual. We know nothing of the cost, or of its practical operations, excepting what is stated by our correspondent above.

For the New England Farmer.

THE WEATHER OF 1858.

[Concluded.]

The whole number of falls of snow during the year was twenty-one, amounting to about thirty-four inches on a level, as near as can be easily calculated, or two feet and ten inches, as follows: In January there were three falls, amounting to six inches; in February four falls, amounting to five inches; in March four falls, equalling nine and one-half inches; in November four falls, equal to nine inches, and in December six falls, equal to four inches.

The last fall of snow in the spring occurred on the 14th of March, and the first in the fall, on the 13th of November.

The number of falls of rain in the year, including thirteen thunder showers, was seventy, occurring as follows: In Jan. four, in Feb. one, in March two, in April six, in May six, in June five, including three thunder showers, in July eleven, including five thunder showers, in August twelve, including two thunder showers, in September six, including three thunder showers, in October eight, including one thunder shower, in November two, in December seven. From December, 1857, to April, 1858, but very little water fell, either in snow or rain, and had such a drought occurred in any other season of the year it must have been strikingly noticeable.

The usual amount of rain fell during the autumn months, and most of the summer months, but in October the springs, and consequently the wells and streams, were remarkably low; hence the query, how is this to be accounted for?

The mean temperature of the year, based upon an average of all the sunrise, noon and sunset temperature, is 45.76°, which I am led, by different methods of observation, to conclude varies but little from the true mean of the year, (I have not room here to introduce a table that I have made out, showing the mean of the sunrise, noon, and sunset temperature for each month, and the mean temperature as deduced from these.)

The mean temperature of the winter months, (according to my method,) is 25.99°, of the spring, 43.98°, of the summer 68.15°, and of autumn 55.79°.

January, 1858, was fully 18° warmer than January, 1857.

The lowest temperature during the year was 12° below zero, the highest 92° above, and the mean of these two extremes is 40°.

The coldest day in the year was the 5th of March, with a temperature of 2° at sunrise, 6° at noon and 7° at sunset; and the warmest day was the 26th of June, with the thermometer at 71° at sunrise, 92° at noon, and 76° at sunset, and the difference between the mean temperature is not far from 80°.

There were two hundred and twenty days of wind from some northerly quarter, during the year, and one hundred and twenty-three from a southerly point. From the northwest there were one hundred and twenty-six days of wind, from the northeast seventy-three, and from the north twenty-one; from the southwest sixty-four, from the south forty-eight, and eleven from the southeast. During twenty-two days the wind was either imperceptible, or so light and changeable that no regular current could be perceived. Had I room I would introduce a table showing the number of days of wind from the points from which it blows for each month. It also appears that there were one hundred ninety-three days of wind from the west, and only eighty-six from an easterly quarter, which shows that the wind prevailed much more from a more or less westerly quarter, than from an easterly point, and accordingly goes to prove a theory in meteorology that the prevailing wind in the high northern latitudes must be a westerly wind, (or southwesterly.)

There were one hundred and four clear days in the year 1858, days in which the sun shone almost uninterruptedly; one hundred and four tolerably clear—days in which the sun shone the greater part of the time though clouds were abundant; ninety-three cloudy days—days in which the sun scarcely shone; and sixty-four designated as quite cloudy—the clouds predominating.

Wilbraham, Mass., 1859. J. A. ALLEN.

EFFECTS OF PEDESTRIAN EXERCISE.—A celebrated English physician says that pedestrian exercise particularly exhausts the spine and the brain, and is, therefore, the kind of exercise less suited to intellectually hard-working men. And it is on this account that horseback exercise is the medicine it is—the horse having the fatigue and the rider the exercise. To sufficiently jar the liver and other internal organs, for some convalescents, the legs and loins must be overworked. The thorough shake-up which is got in the saddle is without effort, or with the effort of only such muscles as can best afford it; and the student-rider comes back with physical forces all refreshed, besides the exhilaration of movement for the spirits and the change of mind.

For the New England Farmer.

THE USE OF LIME AND ITS PROPERTIES.

MR. EDITOR:—Although not a farmer to any great extent, having most of the time, for twenty-five years past, been grinding grain for farmers, yet I have had the opportunity to study Nature in the development of the vegetable kingdom, and have assumed as a motto, *'that in order for a full development of vegetables, there must be a complete association of mineral principles in the soil."* As most of our soil, in the New England States, is deficient in the principle of lime, the component parts of which are, "*a mineral gluten*, and a *mineral alkali*," and, as it is necessary for the principle of alkali to be present in the *sand* or *silica* of the soil, to enable the spongioles or rootlets of plants to decompose so much thereof as will be sufficient to give its body the necessary stiffness to support the head, and the ripened seed, I have come to the conclusion that *lime* must be added to the soil as one of those principles which go to make up a complete association.

I am very much gratified that the Agricultural papers, and some of our farmers, are advocating what I have inculcated for twenty years—the use of lime as manure or food for vegetables; but yet they do not seem to understand *why* they should do so, or why lime is valuable as a manure. They say, that where they make use of old plastering made of *lime* and *sand*—no matter how old it is—as a manure, they receive great benefit therefrom. Now, what are those wonderful virtues which lie concealed in the old plaster? If you should taste of it, you would not perceive that it contained one particle of alkali, which, when it was first made, was so strong with alkali as to corrode one's flesh. I have asked many with whom I have conversed on this subject, what has become of the alkaline matter that was at first so apparent in the old plaster? Some have conjectured that it has evaporated—gone into the atmosphere, while others could not tell, yet they thought that alkali could not evaporate.

They rightly thought. The most intense heat known to us cannot evaporate it, else it would have escaped with the carbonic acid gas in the process of calcination. Then where has it gone to? what has become of it? Answer—the sand which constitutes a large portion of the plaster had an affinity for the alkali of the lime. An association was the consequence. The alkali and the sand have united in one compound, and is in a proper state for decomposition by the roots of the vegetable kingdom. This is why the old plaster has such wonderful virtues in it to make plants grow—"the silica is rendered soluble by associating with alkali." The lime stone, before calcination, is of no more benefit as food for plants, than granite or any other stone, even when comminuted. The gluten of lime differs from the gluten of clay, and when clay and lime are mixed together, they form a very light and porous soil—the tenacity of the clay being destroyed by the lime; showing at once that lime is of as much benefit to clay soils as to any other kind of soils. Should the farmer see fit to dress his land with an hundred bushels of lime to the acre, the alkaline part thereof would soon all be taken up by the sand in the soil, and would be there ready for the use of plants, until the whole had passed into the vegetable form; and the glutinous part would combine with other ingredients of the soil, together with such other manures as the farmer does, or ought to apply thereto. It would there be ready to impregnate his crops of grain and grass with the phosphate of lime, that most necessary of all principles to the health, strength and firmness of the bone and muscles of his animals—increasing their size, and of course their value.

Lime ought to, and will yet be considered indispensable by the farmer in growing wheat and the several grasses. Nor should he neglect to apply all the manure he can command; for the more highly he enriches land by animal manures, so much the more he will need a good supply of lime. If he makes his land rich enough to produce 35 bushels of wheat to the acre, he must put in lime enough to produce a *straw stiff enough to support the heads* of the wheat, and keep it from lodging. Then the sap vessels will be kept from *bursting* at a certain stage of its growth, and *forming a rust* on the straw—having strength and firmness enough to *sustain the pressure* of the sap in its flow to the head for the purpose of forming the grain or kernel.

After I have thus far shown the chemical propensities of lime—its nature and action on the soil for the benefit of vegetables and plants—its use in *saving a good crop of wheat*, which, *without it*, would be a *failure*, by being spoiled by the *rust*, or by *lodging*—must I appeal to the interest of the farmer to induce him to use it? Then, if by applying 10 bushels of stone lime, costing $2,00 at the kiln, to the acre, will increase the yield to 30 bushels of wheat per acre, which otherwise would have yielded only 20 bushels, calling wheat $1,00 per bushel—allowing $2,00 more for going after the lime and putting it on the land, you will receive the first year for your money 133⅓ per cent. as *interest!* Is not *that better than to put it into a bank that may fail?* Then consider the amount of hay you will cut for several years to come, more than you would without the lime, and of a far better quality for your stock—rich in the phosphate of lime.

Farmers of New England, if you wish to compete with the fertile lands of the West—if you wish to excel in your wheat, cattle, horses, sheep, in the staple and fineness of your wool, in the flavor of your butter, and in the quantity and quality of your cheese, sow lime on your lands, on your meadows, on your pastures, not stingily, but bountifully. Sweeten up the soil as your mothers used to do with their sour butter-milk, by pouring into it an alkaline substance to nutralize the sour humus located therein, which now has only a tendency to produce sorrel, raspberries, strawberries, moss and wild cherries; and it will not be long before your farms will assume a more beautiful aspect—a richer dress of wholesome life-giving vegetation. Instead of running over 100 acres of land to fill a 30 by 40 feet barn with hay and grain, you will not, like the man of whom we read, "pull down your barn and build larger ones," but will be necessiated to make an addition of two or three more to hold your crops and your stock. Instead of going over an acre and a half or two acres to get a ton of poor hay mixed with sorrel and weeds, you will be cutting from a

ton and a half to two and a half tons per acre, of good timothy and clover, well filled with the phosphate of lime, of which the bones of your animals are composed.

If what I have said appears reasonable, adopt it; if not, reject it. If it will set many to thinking, it is what the farmers ought to do—think—and not only think, but speak out themselves.

Ripton, Vt., 1859. SAMUEL DAMON.

EXTRACTS AND REPLIES.

TOP-DRESSING—LEACHED ASHES—GUANO.

Which will be the best for a spring top-dressing for grass on a sandy loam,—well-rotted manure, leached ashes or guano—and which will be the most economical—not in regard to first cost—but as to the effect? *(a.)*

Would plaster sowed in the spring be beneficial to a piece of lightish soil pasture, which was seeded down last fall with a manure of bone-dust and leached ashes? *(b.)* YOUNG FARMER.

North Billerica, Jan. 30, 1859.

REMARKS.—*(a.)* Nothing compared with a *well* rotted compost—not a compost that has been greatly fermented, but one well-balanced in all its parts, ripened, mellow, and just in that condition to become soluble, and afford abundant nutrition to the plants as soon as sufficient heat and moisture reach it after being mingled with the soil. Such a compost will afford all, or nearly all, the elements that the plant needs. Leached ashes will not, and guano is so volatile, and its successful use depends so much upon circumstances, that we have no hesitation whatever in recommending the compost in preference to those or anything else.

(b.) On some soils the plaster would be decidedly beneficial, on others not. You can only tell by an experiment.

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SPLINTS ON HORSES.

"A Subscriber," who inquires about "Splints" on horses, is referred to an article in the *American Veterinary Journal* for January, copied from the *London Field*, for a full description, cause and treatment, but lest that excellent journal be not at hand, I will make a few extracts:—

"Some animals have an hereditary predisposition to exostosis, (splints,) which appear before they are subjected to work of any kind, but they are generally produced by the animal being put too early to work."

"The best remedy is peristeotomy," ("Vets" have some jaw-breakers as well as the doctors,) "which consists in making an incision above and below the bony tumor, then with a seton needle raising the skin from the tumor, passing in a knife with a guarded blade, cutting deeply into the substance of the splint, and finally by passing a seton over it, i. e., between it and the skin."

This is an operation that belongs to the veterinarian, and should not be entrusted to the village "blacksmith" or "butcher." It is a question whether it is advisable to meddle with them at all, as they cause lameness but a short time, if at all, and may, and often do, disappear entirely.

Nashua, N. H. V. C. G.

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A KICKING COW.

I have a cow, five years old, that is apt to kick in the stall. Will you be so kind as to let me know how I can break her of that habit?

A SUBSCRIBER.

South Weymouth, Mass., 1859.

REMARKS.—If she has always been kindly treated, she certainly shows a great want of good manners in kicking her friends. If our cow, we should approach her gently, quite often, and usually with a lock of hay, a nub of corn, or a potato or an apple in our hand—speak kind words to her, scratch her neck and back, and convince her, if possible, that we desired to be on the most friendly terms with her. If she was a valuable cow for milk, and notwithstanding all these evidences of kindness, persisted in kicking our shins, we would, *perhaps*, try what virtue there is in punishing—and as a last resort, send her to the butcher.

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DISEASES IN FOWLS.

Of late there has been considerable said about diseases of fowls, particularly the hen, but as yet I have not seen anything about dropsy. If any of your readers have had occasion to witness anything similar to this disease, it would be interesting to hear from them, and if they can show its cause and a remedy, it will be very acceptably received by the breeders of fowls generally. I have lately among a flock of more than two hundred lost several by this disease. The body seems to be filled with a yellowish water, in which the bowels are completely enveloped, besides which there are clusters of water-sacks connected together, remote from and independent of the ovaries. Some of these clusters contain from half-a-dozen to twenty sacks, from the size of a pea to that of large grapes. These are also filled with a yellow water, and connected by ligaments of unnatural growth. Will some one who is acquainted with rearing and doctoring fowls give us a remedy, if they are acquainted with the like disease.

PETER A. FOSTER.

Shaker Village, N. H., 1859.

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NASH'S PROGRESSIVE FARMER.

Should not this book be taught in our common schools? It contains much useful knowledge that will help the farmer in cultivating his farm. The author has written it in so plain, easy and practical a way, that it is a pleasure to read it.

Take the analysis of a tree, commencing at the roots and tracing it up through the bark, sap, heart and pith to the extremities of its branches. How many are there that know the use of the leaves in the vegetable world around them? The tiny leaf, that trembles in the breeze, is so formed, that one side of it is constantly drawing in the unhealthy and impure air which the animal world is throwing off, and giving vigor and

life to the tree, passing through its laboratory, and is again thrown off, from the opposite side of the leaf, changed from an impure to a healthy air.

In this we see the wisdom of the Creator, and it ought to draw the mind from Nature's works up to Nature's God. With this knowledge the farmer, as he walks his farm, surrounded with trees, decked with leaves and flowers, ought to feel happier with his occupation than he would without this knowledge. What a wide field there is open before him for studying the habits of the animals, the fowls and insects that are around him. W. A. P.

Barre, Mass., 1859.

REMARKS.—The little volume spoken of above ought to be read by every progressive farmer. It will suggest a thousand things both pleasant and profitable.

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SEVERAL THINGS.

A poor farmer in Orleans county, Vt., wants to know if he shall plow in manure or harrow it, when he seeds to grass? *(a.)*

Is it best to use a roller on dry and gravelly land? *(b.)*

Will not two eyes be better than one in a hill of potatoes? *(c.)*

Will it pay to spread manure on dry, gravelly land? *(d.)*

Would it not be better for farmers if the money expended on fast horses were laid out in premiums on fall crops? *(e.)* A SUBSCRIBER.

Orleans County, Vt., 1859.

REMARKS.—*(a.)* Plow in three or four inches deep, and level with harrow.

(b.) Certainly. The more dry and light the land, the more necessity for the roller. Have you not observed on such land, that where the cattle tread in harrowing the seed in, that the seed comes up earliest in their tracks?

(c.) Seeding for potatoes is a mooted and delicate question. We can only say, that we seed lightly with small potatoes, or large ones cut, and that we find no depreciation in the crop.

(d.) By manuring your dry, gravelly land liberally for several years, you will bring it into a moist, rich, gravelly loam—but you must manure freely as far as you go. If it is in grass land, spread the manure as soon as you get off the hay, or, late in autumn.

(e.) Yes. Or better still, in supporting farmers' clubs and other meetings for agricultural discussions.

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WHAT AILS THE HORSE.

My horse is five years old, and eighteen months ago it had the appearance of having rubbed the skin off on the inside of the right gambril joint, about the size of a quarter of a dollar. Since that it has been gradually growing larger in circumference, and projecting in the form of a wart, and a roughness similar to a wart around its edges. The friction caused by the other leg from his laying down, keeps the crown of it raw. It is now about the bigness of a dollar in circumference, attended with very little soreness, though I perceive on working him hard for a day or two in succession that it is attended with swelling and stiffness. I have been treating it as a wart, but have not been able to find anything that has been of use. MERRIMACK, N. H.

Jan. 20, 1859.

REMARKS.—Youatt says if the root of the wart is very small, it may be cut asunder, close to the skin, with a pair of scissors, and the wound touched with lunar caustic. But if the pediate or stem be somewhat large, a ligature of waxed silk should be passed firmly round it, and tightened every da

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THREE POTATOES.

I send three potatoes; if you are acquainted with their names and qualities, I wish you would inform me through the *Farmer*.

So. Strafford, 1859. W. B. HAZELTINE.

REMARKS.—The three potatoes you were kind enough to send us are the most perfect *in form* that we ever saw. The eyes are nearly level with the surrounding surface. Give us some account of them, if you can.

—

JAVA SPRING WHEAT.

Do you know anything about the *Java Spring wheat* raised in your section? A. B. A.

West Georgia, Vt., 1859.

REMARKS.—This wheat was introduced into this vicinity by Mr. STEPHEN DILLINGHAM, of Falmouth, on the Cape, we believe, in 1857. It has given great satisfaction wherever tried. There will be a limited amount for sale this spring by NOURSE & CO., 34 Merchants Row, Boston.

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ESSEX CO. TRANSACTIONS.

I wish to procure the Essex County Transactions for 1858. G. S. JOHNSON.

Montpelier, Vt., 1859.

REMARKS.—Write to the Secretary, ALLEN W. DODGE, Esq., Salem, Mass.

MAINE BOARD OF AGRICULTURE.

We have recently read the discussions of the Board, as reported in the *Maine Farmer*, with much interest. Its meetings were held for several successive days, and a detailed statement of what was done, and doing, in their respective districts, was given by each member of the Board. Such statements are beneficial to those who give them, and to those to whom they are given. If it is known that this will be required, none but those qualified will accept the appointment, lest their own inferiority should be made apparent; and if none but good reports are made, the people will have the benefit of sound instruction.

For the New England Farmer.

WILL GRAIN CHANGE ITS KIND?

Harvard, February 4th, 1859.

MR. EDITOR:—As I have lately seen in the *N. E. Farmer* several articles on the change of one kind of grain to another, I send you the following extract from the "*Boston Gazette and Country Journal*," published July 23d, 1759, thinking it may be interesting to some of the numerous readers of your valuable journal.

JAS. I. WYER, JR.

To the Author of the Grand Magazine.

SIR:—If you have not already heard of the following extraordinary instance of the powers of vegetation, in the transmutation of one species of corn into another, I am persuaded I need make no apology to trouble you, on so important and curious a subject.

This phœnomenon was first observed in Sweden, where it was discovered by mere accident. A countryman having sown some oats in his field, and wanting provision for his horses, mowed the young shoots of the grain soon after they were come up. The grain shot forth again, as usual, and the farmer mowed it as before. He did this, at intervals, three times. The winter coming on, no more blades appeared till the following spring, when shooting up as before, they were permitted to grow to perfection, and the crop, to the surprise of the poor husbandman, instead of proving oats, turned out absolutely good rye. This fact coming to the ear of a very ingenious naturalist of that country, Mr. Jop Bern Vergin, he suspected there might be some deception, and accordingly in the year 1750, repeated the experiment, observing exactly the same measures by design as the countryman had taken by chance. The result of this experiment was the same, and his oats produced good rye, as that of the peasant had done before. A circumstantial relation of this extraordinary discovery was soon afterwards sent to their High Mightinesses, the States General, by Mr. de Marteville, their Envoy at the Court of Sweden.

Curiosity, and the desire of further knowledge concerning this surprising phœnomenon, induced some of the naturalists of that country to try the experiment again. Among the rest was Mr. Syperstein, one of the Magistrates of Harlem, and the President of the society lately established there for the improvement of arts and sciences. This gentleman sowed a handful of oats on the 21st of June, 1757, and again another on the 26th of July following. The first he cropt at three several times, viz., on the 29th of July, the 8th of September and the 11th of November. The last he cut only twice, viz., on the 13th of September, and the 18th of November. The succeeding winter happening to prove very severe, almost all the grains perished in the earth, through the inclemency of the weather. Five of them, however, remaining alive, shot up in the spring, and produced large and full ears of good rye, which was reaped the 7th of last August.

As the utmost care was taken in this experiment to avoid any mixture in the grain, as well as to prevent any grains of rye from falling accidentally, or otherwise, on the spot of ground sown; this transmutation, however strange it may appear to the ignorant, or inconsistent with the systems of naturalists, is looked upon here as an indubitable fact.

With a view of prosecuting this discovery still further, Mr. Syperstein has sown a fresh parcel of oats, treating them as before. He has also sown some of the rye produced from the oats, which he has cropped in the same manner as he did the oats that produced it. He proposes also to make several experiments, with a little variation, in order to improve on this discovery.

SLEEPING PLANTS.

The sleep of plants, which was discovered by Linnæus, is caused by the different influences of light and darkness, cold, heat and moisture. The common chickweed (*Stellaria medica,*) of which birds are so fond, furnishes a beautiful instance of the sleep of plants. Every night the leaves approach each other in pairs, so as to include within their upper surfaces the tender rudiments of the young shoots; and the uppermost pair but one at the end of the stalk, are furnished with longer leaf stalks than the others, so that they can close upon the terminating pair, and protect the end of the shoot.

The flowers of the Marvel of Peru, (*Mirabilis jalapa,*) which are very beautiful, do not open in hot weather until the evening; but, if the weather be cool, or the sun is obscured, they open in the day-time. Another variety of the same plant is called the four-o'clock flower, from opening at that hour of the day.

The scarlet pimpernel, (*Anagillis arvensis,*) which is a plentiful weed in corn-fields, is called poor man's weather-glass, and shepherd's barometer, from the flowers always closing before rain; and should the weather be ever so bright, they always shut up at noon.

The flowers of a sort of convolvulus (*Rivea bona-nox*) are large and white, expanding only at sunset, and perfuming the air to a great distance, with a fragrance resembling that of the finest cloves. It is a native of Bengal, where it rambles among the forests, and is called the Midnapore creeper.

The common goats-beard (*Tragopogon pretense*) grows in many parts of Britain, and is called go to-bed-at-noon, from the fact of its flowers closing about that time.—*Household Words.*

For the New England Farmer.

TOWN, COUNTY, AND STATE SOCIETIES.

DEAR SIR:—I am glad to learn from the papers that there is in contemplation a re-orgonization of our Agricultural Societies, which shall render them more efficient. I wish to suggest a plan for this purpose, which has long been in my mind. It is briefly the following:

1st. Let there be clubs or societies in every farming town, for discussion, the support of lectures, the formation of libraries, and the exhibition of the results of their thought and labor.

2d. Let there be county societies, which should include these town societies, and which should hold exhibitions, at which those who had received certificates of excellence at the town exhibitions,

and they alone, should be allowed to compete for the superiority.

3d. Let there be a State Society, which should consist of delegates chosen by the county societies, which should arrange the whole general system for the management of the town and county societies, which should receive the entire bounty of the State, and expend it for premiums, and in other ways, for the advance of agriculture, and which should admit to its exhibitions as competitors for premiums only those who had received diplomas or certificates of excellence from the county societies. W. C.

Clinton, Mass.

SIXTH LEGISLATIVE AGRICULTURAL MEETING.

[Reported by John C. Moore, for the N. E. Farmer.]

Subject for Discussion—*Fruits, and how to raise them.*

The meeting on Monday evening, in the State House, was pretty numerously attended, as the series has heretofore been this season. This may be accounted for by the eminently practical manner in which the discussions are conducted, and the confinement of the observations to the subject under debate. Hon. Simon Brown, of Concord, occupied the chair.

The President stated that the subject of growing apples, pears and grapes had been heretofore discussed, and the Committee had desired that some attention should be given to the smaller fruits. The *Strawberry* was one of the most important of these. The kinds grown were numerous; but not above a dozen were desirable to cultivate—in fact, not so many. Among the better sorts for cultivation here were the *Hovey's Seedling*, *Early Virginia*, *Jenny Lind*, *Brighton Pine*, *Jenny's Seedling*, *Walker's Seedling* and the *Wood*. The last of the varieties mentioned was one which ought to be better known; for, without disparaging any of the others, it was among the best; a free grower, produced its fruit on long stems, and continued to furnish it during five or six weeks after the first supply ripened. It was an excellent fruit for family use, and to that it would have to be principally confined, as it would not safely carry to market, it was so easily damaged. It was nearer in flavor to the wild strawberry than any he knew—indeed, no more palatable table fruit could be found. It was easily produced; as much so as were potatoes, and required only such richness of soil as would be required to raise corn, at the rate of sixty bushels per acre. A deep, moist, black loam, in the experience of the speaker, was the best soil for the culture of this strawberry; but some said a yellow loam would suit—a fact he had no practical opportunity of knowing. A general condition of successful cultivation would be found in having the land rich and moist. As proving this question, Mr. Peabody, of Georgia, had raised the strawberry in great perfection, and the secret thereof was the plentiful supply of water he furnished the vines. The Secretary of the Belmont (Mass.) Club had furnished the Chairman with certain statistics, which he partly quoted. These showed, in one instance, that 3000 boxes had been raised on one acre, which, at 25 cents per box, would realize $750. The manure per acre, cost $150; picking, $150; cultivation, $150, and marketing, $150; leaving a profit of $200. But even this was held to be but moderate profit, as market-gardeners in that neighborhood were in the habit of realizing a larger acreable return for their labor. Another party estimated the number of boxes of strawberries at 4000 from an acre, which, at 25 cents a box, would give $1000. His estimate was $400 for cultivation and marketing, and the consequent profit would be $600! A good crop might amount to 4000 boxes the first year, and 2000 the second one. As to planting the strawberry, the best time to do it was the spring—as early as the late frosts would permit. The rows should be three feet apart, and the plants in the rows one foot separate. Between the rows beets might be planted, the cultivation of which would keep the strawberries clean of weeds. After the beets were harvested, the strawberry vines would run and cover the spaces between the rows, before winter came on. Being well weeded next spring, they would produce fruit plentifully next summer. Some thought it questionable management to let the strawberry plants remain over for another year, on account of the trouble and expense of weeding and the diminished produce, and it was better to turn them under. Mr. Brown was of opinion that such should be the rule, so far as marketing purposes were included; but where family wants were merely to be supplied, he believed it would be well to put up with a little extra labor in weeding, when the plants could be saved, and be reasonably productive, even for four years. Experience had shown him that this could be done and the vines bear moderately well. For his own part, however, he would recommend that the vines should be planted in rows two feet apart, the hills a foot distant in the rows, leaving a space of three feet between the rows to allow room for weeding. When the proper time came, (the close of the second year's bearing,) the weeding path should be spaded, the best runners planted and the old rows turned under.

Raspberries.—Mr. Brown next made reference to raspberries, the varieties of which, he said, were less numerous than the strawberry. Wild descriptions might be cultivated with much profit in gardens, as they were hardy and less liable to

winter-killing than the cultivated kinds. Among the latter was the *Red Antwerp*, commonly cultivated in New England, (which was a little tender in winter;) also the *Fastolff*, *Knevett's Giant*, and a more recent, and in his estimation, a better one, viz.: *Brinckle's Orange*. This was a valuable acquisition to our list of small fruits. It was of a fine orange color, semi-transparent, clear and juicy, with a saccharine quality that seemed to satisfy everybody, and it was an excellent producer, besides.

Raspberries should be planted in the spring. In preparing the vines the old wood ought to be cut down to the ground, and no more than three canes or sprouts left, as a greater number would be less productive. The tops of the canes should be cut off, also, when they were about four feet high, at which time they should be tied to a horizontal board, fastened to standards, to keep them from damage from storms, &c. The rows ought to be planted four feet asunder, and the hills in the rows three feet apart; and under reasonable conditions of soil and management they would produce bountifully. No more care was demanded by them than that requisite to grow a fair crop of potatoes. The soil ought to be what would constitute a good corn soil; and a requirement would be such exposure as would conduce to natural warmth, without any undue restriction.

Blackberries. — The blackberry, Mr. Brown said, was known through fewer varieties than the raspberry; and the most common descriptions yielded liberally to cultivation. He had grown the common high blackberry, taken wild from the fields, for ten years, and with care in its management had found it wonderfully prolific. It had always a tendency to over-productiveness; and unless the cultivator was careful in denuding it of two-thirds, at least, of the fruit it would strive to set, it would perfect but a small portion of the whole. One-third was as much as the vine could bring to maturity. He had cultivated the *New Rochelle* or *Lawton* blackberry, but had not succeeded in ripening it. In extenuation of this, it had been urged that the unripe berry would make the best of wine; but in that respect, Mr. Brown said he had no experience. The *Dorchester* variety he had not cultivated, but report spoke well of it. The common black or white *Thimbleberry* he had tried, and found it prolific, and the fruit good—none better than this for the tea-table. Its cultivation would well repay very common care, and it could be grown profitably on any good corn soil.

Cranberries.—The great demand for this fine, healthy fruit, made its cultivation a matter of much importance. There were several varieties grown; but the oblong description, which frequently grew an inch in length, in size and flavor, was, in Mr. Brown's estimation, the best. The other most prominent variety was round. On meadows that could be flooded at will, the fruit could be grown profitably, after due preparation. By irrigating the soil the bushes, weeds and aquatic grasses obnoxious to its growth could be killed, when the plants could be put in by the use of the hoe. Attempts made to scarify and burn the surface of a meadow had not proved successful. But the most desirable thing was in the first place to find out on what kinds of soils cranberries could be most profitably grown. Where white sand was found as the subsoil, successful cultivation was the most certain—and this fact ought to bear its suggestive value. Mr. Brown said he had grown the cranberry on high grounds, but owing to the trouble arising from weeds, the removal of which fatally disturbed the tender roots of the plants, they dwindled and died. He described an attempt to cultivate the cranberry along the edge of a meadow, through the use of gravel, sand and mud, as an artificial soil, and as far as he had gone, with very good success. A want of the advantages of irrigation, and a too liberal use of it in some instances, had militated against the production of a sufficient crop to meet the demand, and now the price had increased a dollar or two per bushel as compared with what it was five years ago. From flowages by reservoirs and dams, which destroyed the vitality of the plants, he spoke of a single town which had formerly produced $5000 worth of cranberries annually, but which at the present time did not produce a single dollar's worth per acre.

Apples and pruning.—Mr. Brown next proceeded to speak of the apprehension of some that too much attention was given to the cultivation of apples; but this charge he thought wrong, as, through carelessness and maltreatment not more than twenty-five out of every hundred apple trees planted ever bore fruit! One great cause of this was the time of pruning as recommended and followed by some. All spring pruning was imprudent—the months of March, April and May being the worst for that process. The physical reasons for this statement were advanced, but want of room hinders their enumeration. The import of the argument was that when the sap is ascending, the pores of the sap wood are enlarged and filled with a thin watery fluid, ready to flow out at every incision made into them; but that after the sap has reached the leaves, it becomes, through their agency, a new article—is thicker, and returns down the tree between the bark and that soft whitish substance next to the wood, and is called the laburnum. This returning sap is what is laid on and increases the size of the

tree from year to year. In March, April and May, the sap is in the thin condition; by the middle of June it has become thicker, is a different substance, and a wound judiciously made during a month from that time will rarely bleed. After a very happy allusion to the domestic, social, and moral advantages of a taste for horticulture, floriculture and pomology, the chairman closed, and invited other gentlemen to speak.

Mr. LAKE, of Topsfield, was called upon, and made some practical observations on the culture of *cranberries, strawberries* and *blackberries*. They generally coincided with those of the President. In relation to pruning apple trees, Mr. Lake thought the greatest evil was *pruning too much* by the knife, and through suffering cattle to do the duty without any rule, which was too often the case. Cutting off of heavy limbs was always imprudent, as decay and disease was a general consequence. July and August were the best times for pruning apple trees. Mistakes had been grossly made in the way by pruning pear trees; the nearer their natural condition they could be kept the better and more liberal the produce. In regard to dwarf pears especially, this rule should not be innovated. Mr. Lake went on to demonstrate that fruit grown beyond a certain altitude on a pear, or any other tree, was not so good as that grown lower. Fruit too much exposed to the sun, which was one consequence of too much pruning, was never so good, or so sound, as that grown under conditions where nature had her own way in protecting it from undue injury from storm and hot sunshine. Mr. Lake wound up by attacking the rage for planting what he called fancy sorts of apple and pear trees, and commended only such as were well known for their bearing and hardy properties.

Senator METCALF, of Worcester, spoke of *cranberry culture*—the great ease with which it could be accomplished, and the profitableness of its culture. He spoke of an acre of ground that produced $500 in value. One person he knew strove to sell a meadow of his for $500 an acre; but recently, the produce of the same meadow gave him $700 to $800 yearly. This was only a small portion of a farm that cost originally $1700. Cranberry lands in Worcester county were assessed higher than any other lands, on account of their productiveness. Careful cultivation had recently greatly improved the quality of the cranberry.

Dr. CARPENTER, of Warren, spoke of the peach, which, he said, was a native of Persia, and in its native state was very poisonous, on account of its containing much prussic acid. It was also bitter; and cultivation alone had brought it to its present very improved state. What had been done for it could, he supposed, be done for many wild fruits of native character, which were more permanent in their existence than the peach, which was short-lived.

Mr. HINCKLEY, of Barnstable, made a few observations on cranberry culture on the Cape. The prevailing idea in that district was, that the lands on which it was grown should be flowed during winter, and until June; and wherever facilities were favorable, this had been the practice. So soon as the vine was exposed to the atmosphere, the flower was subject to be attacked by a worm. As soon as this was observed, the custom was to reflow the land, when the worm was killed. This was the secret of success in some instances. One gentleman had taken $600 worth off a small lot whose facilities for flowage were good. Another had six acres, for the crop of which he had been offered $1,000; but the worms came, and no opportunity having existed for flowage, they destroyed the crop, so that he had only two or three bushels. In view of these facts, Mr. Hinckley thought that, unless facilities for flowage were always at command, the propriety of growing this crop was questionable.

Messrs. HINCKLEY, LAKE, and other gentlemen, discussed the subject of raking cranberries, as it related to the injury of the plants, or the contrary. Opinions were in direct conflict; one party upholding the fact that damage was the consequence of raking, and another, that the stirring it gave the plants conduced to their healthier growth.

Mr. WETHERELL spoke in favor of taking scions for grafting from young trees, and quoted instances in favor of this position. He also alluded to the matter of pruning; holding that it ought to be done intermediately, between the time of the production of the fruit and the growth of the wood. Further, he wished it to be noted that the rules of pruning as laid down in England were not generally applicable in this country.

Hon. RICHARD S. FAY commended pruning in the months of September (the latter portion of it,) and October, as otherwise disease and decay would almost certainly ensue. His experience extended over some time, and included the treatment of some thousands of trees, and such had been its teachings. As to the cranberry, he thought it could not be safely cultivated unless there was a privilege of flowage always at hand.

There will be no meeting until a week from Monday, when Ex-Gov. Boutwell will preside, and the subject will be—"*Market and Agricultural Fairs.*"

SOAP FOR CHAPPED HANDS, &C.—Take one bar of yellow soap; cut it up small; add to it the gall of a beef; put it over the fire until the soap is entirely melted; (a farina kettle is most

convenient to melt it in;) then add one ounce of fine pulverized saltpetre and one pint of alcohol; pour it into a vessel (previously greased) of a size to make the soap at least one inch thick. When firm enough to cut, before it hardens, cut it into cakes of a convenient size. This soap will be found excellent for taking grease spots out of woollens and silks.—*Maine Farmer.*

For the New England Farmer.

PRUNING APPLE TREES.

MR. EDITOR:—I noticed in the December number of the *Farmer*, a communication from Mr. ELLIS, of Rochester, upon this subject. In your remarks upon that communication you condemn the practice of spring pruning, and say that we ought to know better than to begin to destroy our orchards just as they are coming to maturity. I have been taught from my boyhood to prune in the spring, but if I can find a better time, I am ready to adopt it.

But which shall I follow,—my own reason and observation, or the instruction of the *Farmer?* If we cut off a branch in the spring, before the leaves expand, do we not save the sap for that which remains? Can the tree be in as good condition to heal the wounds made by pruning just after the leaves are put forth as before?

I am aware that some tell us that plants derive most of their nourishment from the atmosphere, inhaled through the leaves; why cut them off, then, just as they are prepared to act?

I have never known an apple tree that was pruned in March or April to bleed. In May, we are too busy to prune, so that I cannot speak from my own experience in pruning, in that month; but I recollect that one of my neighbors gave his apple trees a very thorough pruning last May. I was led to notice these trees particularly, from some remarks made by persons who were passing by, as the trees were near the public road; one said it was too late in the season; he pruned some of his trees last year about that time, and they bled badly; another said it was too early; he thought the middle of June the right time. I think the trees are doing well; they did not bleed, and soon began to heal.

I hope, Mr. Editor, if our lives and health are spared until spring, you will come to Danvers, and I shall be happy to wait upon you, and show you the trees in this neighborhood, which have been pruned in the spring for the last forty years.

WILLIAM R. PUTNAM.

Danvers, Mass., Jan., 1859.

REMARKS.—We do, friend PUTNAM, condemn the practice of spring pruning, most emphatically:—*first*, from repeated experiments through a series of years,—*secondly*, from long and careful observation of the hurtful effects of such pruning,—*thirdly*, because spring pruning, more especially, violates the laws of nature that govern the tree, and *fourthly*, because we have never yet entered an orchard with an opponent of our theory, where we have had a careful examination of the trees and discussion of the subject, but what the reasonableness of the theory has been made apparent before leaving it. A gentleman having the care of a large extent of orcharding, and who had always been an advocate for *spring pruning*, recently spent an hour with us among the apple trees, where some of them had been pruned at all seasons of the year, and after a most careful examination of a large orchard, he confessed that he had, undoubtedly, been in error, and should prune no more trees in the spring.

You ask, "*If we cut off a branch in the spring, before the leaves expand, do we not save the sap for that which remains?* Certainly not,—no more than you would save a man's blood to strengthen the rest of his body by cutting off one of his arms. It ought to be remembered that all grafted or budded trees are in an unnatural or artificial condition, and that pruning is only another step away from nature. We prune because branches cross and chafe each other, or because we fancy there are too many of them, or that the tree may be made, to our eye, with a little exercise of art, more symmetrical in its form. But in all this there is danger to the tree, so that if we prefer to indulge our taste as to the beauty of the plant and quality of its fruit, we ought to study the nature and habits of the tree we work upon, and learn, not only how our art shall be exercised, but *when*. We ought to learn what the condition of the sap is at various seasons, and what office the leaves perform in the growth of the tree.

Upon cutting into a vigorous tree any time after the frost is out of the ground, and previous to the 25th of May, a little careful observation will convince any one that the sap during that period is nearly transparent and exceedingly thin and limpid. It runs freely wherever a smooth, clean cut is made into the wood. This follows because the roots have taken up in abundance this watery substance, and the pores of the tree are open to allow it to pass freely through the stem and branches on its way to the leaves. It is not improbable that there may be a temporary expansion of the pores, for the very purpose of affording a quick and unmolested passage of the sap.

In this condition of the tree, what would be the inevitable consequence of cutting off a thrifty limb as large as your wrist? What is there to prevent the sap from gushing out at every one of the tubes or pores which you have cut off? It would be strange, indeed, if the sap should flow up to the wound and there stop, with all the mouths of the pores wide open!

Having traced the sap along to the leaf, let us see, for a moment, what its action is there. According to WOOD, a most accurate observer, its functions are *exhalation*, *absorption*, *respiration* and *digestion*, and the result of their combined

action is the conversion of the *crude sap* absorbed from the soil by the roots, into the *proper juice*, for the nourishment and increase of the plant, with its various products. This crude sap consists of water, holding in solution minute quantities of various kinds of solid and gaseous matter derived from the soil. In its passage from the root to the leaves its composition is somewhat modified by dissolving the previously formed secretions, which it meets with on the way.

Exhalation is the process by which the superabundant waste of the sap is given off to the atmosphere, so that the remaining sap is reduced, as it were, by *concentration*, and contains a greater portion of solid matter. It is much like the perspiration in animals. It is to be distinguished from evaporation; the latter depending solely upon heat and the state of the air, and being, in plants, almost wholly restrained by the epidermis or skin of the leaf.

This *exhalation* takes place through numberless little mouths *on the upper surface of the leaf*, called stomata, similar to the pores of our skin; these mouths are *opened by the influence of the light*, and *closed by its absence*, and, therefore, exhalation can only proceed in the presence of the light. A sunflower 3½ feet high, was ascertained by HALES to transpire or send off from 20 to 30 ounces of water daily.

Absorption is chiefly performed by the *roots* of plants, but when the roots are imperfect, it is evident that the plant must derive its nourishment mostly from the absorption performed by the leaves. Every one knows how plants, when parched and withered by drought, are raised by a shower which does not reach their roots, but only moistens their leaves, as you must have noticed in your corn-fields many times, how rapidly the parched and rolled blades of corn will unfold themselves and assume a lively green, even under a slight shower that could not reach the roots. The under surface of the leaf *absorbs*, and the upper *exhales*. Wonderful arrangement!

Respiration in plants is much like the *breathing* in animals. It is equally constant and equally necessary. It is performed principally *by the leaves*, and consists of the absorption of oxygen from the atmosphere, accompanied by the rejection of carbonic acid. It appears to be going on constantly during the life of the plant, and the result is the removal of a certain superfluous portion of carbon, in a state of combustion with oxygen, from the nutritive substance of the plant, just as the same deleterious acid is removed from the blood of animals by breathing.

Digestion in plants consists properly of all those changes effected by the leaves in *rendering the crude sap fit for the purposes of nutrition.* This consists in the decomposition of carbonic acid by the green tissues of the leaves, under the stimulus of the light, the fixing of the solid carbon and the evolution of the pure oxygen.

Several things present themselves to our mind by which we might illustrate these points,—but it seems to us that the careful reader will now see some of the physiological operations of the tree which he is about to prune. He cannot have failed to see that soon after the middle of March, varying a little with varying seasons—the sap, then more like water than anything else, ascends the stem of the tree and reaches the extremity of every twig or branch, and that wherever any cut or rupture takes place in the pores, the sap will naturally run out.

But when the sap has reached the leaves it undergoes a material change there,—the watery particles being evaporated, and leaving it more solid. This now returns down the tree, *not* through the sap vessels where it went up, but flows between the bark and the soft, woody substance under it, and pausing on the way and increasing the size of the tree. Under these circumstances, if a cut is made into the sap vessels sap does not run from it, because there is little or none there. The wound made at this season,—say *from the 15th of June to the middle of July*,—should be covered with wax, shellac or paint, and the *returning sap, now passing down directly under the bark, will push out the new, green bark around and over it, if not too large*, and entirely covers it the first season!

If, on the contrary, the wound bleeds, that is, the sap runs out, it flows down the outside of the limbs or trunk of the tree, undergoes a chemical change as it becomes exposed to the atmosphere, leaves *long, black lines on the surface* which soon kills the bark, and the tree eventually dies!

It may not be that the tree perishes from this poison alone, but from the want of proper action, as in the case, sometimes, of the amputation of an arm, the muscles on that side contract, the chest falls away, and in some instances the lungs are seriously affected; and this results, we suppose, from a want of proper action, after an important member has been taken away.

It seems to us that the reasons now given for June and July pruning, ought to have weight, and we think they will, if carefully considered.

We have occupied considerable space in reply to our correspondent, because the subject is one of importance to the farming interest. We give, below, an article long since received from another correspondent on the same topic.

BLACK SPOTS ON APPLE TREES.

I have noticed in the *New England Farmer* remarks made in regard to a blight, or large, black spots which come on the trunks and limbs

of apple trees. I have observed these black spots for some years. I have asked many farmers the cause of them, but I found that they disagreed respecting their origin, and the information received from them did not satisfy me.

These black spots on the trunk and limbs of apple trees, where the bark dies, are very injurious to the health and longevity of the tree; they form blemishes which are exceedingly disagreeable, and are often ruinous.

If the cause of these blights could be ascertained, possibly a remedy might be applied to prevent their occurrence. I acknowledge, that I have not been able, as yet, to satisfy myself as to their origin, but am desirous of information on the subject. The way I manage them is thus: I pick off the old, dead bark clean, then if the live bark has not begun to grow over the wood, I take my knife and pare off the bark on the edges till I find the bark alive and healthy. As the tree or limb grows, new bark will continue to form on the edges, and increase on all sides till the whole space is covered. If the old bark is not removed and the edges of that bark on the blight pared off till new and healthy bark is found, it takes a long time for the spot to be covered over with new bark. During the time the new bark is forming, I keep the wood painted thoroughly, being careful not to let the paint touch the bark. If the wood is not kept painted, it very often occurs on trees not in a thrifty condition, that the wood decays so much where these black spots are, that the bark never grows over the spots and then the wood continues to decay till the limb breaks off, or if it is situated on the trunk of the tree a bad hole is made which eventually destroys the tree. So far as I have been able to observe these black spots, they come on the upper sides of the limbs and on the trunks of the trees on the southerly side generally.

APPLE TREE.

For the New England Farmer.

WHY IS CHEESE POROUS?

MR. EDITOR:—I noticed in your January No. of the monthly *Farmer* a request of a "New Subscriber," that you, or some of your readers would inform him of the cause of porous cheese. I would most gladly give him all the information in my power, especially as he hails from the Green Mountain State, my own native place. I cannot but express my surprise, *if he was raised in that far-famed cheese-making State*, that he should not have learned in his childhood, from his own mother, the cause of porous cheese. But to remedy his condition, let him visit some go-ahead farm-house wife, who is in the habit of doing all her work in a hurry, with a slat and a slam; who frequently does her washing, ironing, baking and making cheese in a day, and gets it all done in season to go a visiting in the afternoon,—and when he sits down at the tea-table, if he does not see a plate of porous cheese, it is because there is no cheese of any kind on the table.

To make porous cheese, in the first place, heat the milk very hot, not scald it, then throw in the rennet; be sure to get in enough, and if you want a very porous cheese, put in a great deal *too* much, so that it will come in a very short time, but don't put in but very little salt, *(not half enough,)* and then don't let the curd stand long enough for the whey to drain off, but hurry it into the press as quick as you possibly can; then let it stand in the press until it is pressed enough, or until you can conveniently attend to taking it out—and my word for it, if you don't have a porous cheese to your satisfaction, a slice of which will stretch out by pulling it at each end, like a piece of India rubber, as long as your arm, and on letting go of it, will contract into its original dimensions. The world was not made in a moment, neither can good cheese be made without time and care.

L. D.

East Plainfield, Vt., 1859.

MR. MORRILL'S LAND BILL.

We copy in another column, from a letter of the Washington correspondent of the *Daily Advertiser*, the leading provisions of Mr. Morrill's Land Bill, that the reader may see for himself what the bill proposes to do, and what are some of its conditions. He will observe, we trust, that if Massachusetts accepts the provisions of the act, she must erect one college, at least, within five years, and must do it with money *from her own treasury!* She cannot aid any existing college, purchase lands for sites or experimental farms, beyond the sum of ten per cent. of the interest accruing on the money she obtains from her share of the lands sold! She must also incur "all the expenses of management and superintendence of the lands, previous to their sales," and when she has made the sales and got the money, she must invest it so as to establish a permanent fund, and if all, or any portion of it, "by any action or contingency, be diminished or lost, *it shall be replaced by the State to which it belongs*," so that the annual interest only can be applied, to promote the interests of agriculture. The amount of land which Massachusetts could claim if she should accept the provisions of the bill, would be 260,000 acres,—and this immense tract of land must be guarded from invasion by squatters, managed, superintended, sold, and the money for the same securely invested so that not a shilling of it shall be lost! It is scarcely probable that all this land could be sold to a single party, but in the course of time, to actual settlers, one hundred acres at a time, so that perhaps some twenty-five or thirty years might be occupied in getting it all sold, and the money for it invested! What a splendid commission would be required for such an enterprise. The "Back Bay" and "North Eastern Boundary" are mere babies compared with it. Think of the $5 per diem, hotel charges and travelling expenses from the good old Bay State to Dacotah, Arizona, Cohuila, or some other equally enlightened and promising region, that would pour out its treas-

ures through a small company of select gentlemen, and all for the benefit of agriculture!

All this *may be* of benefit to the new States, where a college has never yet been established, though we must confess that we cannot clearly see how. But in our judgment, there is not the slightest probability that Massachusetts, through any legislature she may convene for forty years to come, *will avail herself* of the provisions of this act, and place herself under its obligations. We would publish the whole bill if we had room, but beg the reader to read attentively those portions of it that we now give.

For the New England Farmer.

MATTERS WORTH CONSIDERING ABOUT POTATOES.

Mr. Editor:—If your patience is not already threadbare, I should like to be heard on the subject of the knotty and vexed question of *the cause and remedy of the potato rot*. And I promise to adhere strictly to Caleb's rule of never offering an argument that "did not stand to reason." Neither would he believe one that did not have this support to it—would that we all had the *gumption* of simple Caleb.

If history be true, the potato was brought from Ireland by Sir Walter Raleigh, to Virginia, when it was first colonized, which was about the year 1585; and subsequently it was carried to England, where it met with no great favor for many years, supposing it only fit for the poorer classes of the Irish.

In the "Body of Husbandry," printed in London, in 1758, I find the following:—"The potato may very properly be cultivated in fields. It is better fitted for the great extent and plain fashion of a field, than for the narrow compass and divided beds of a garden. 'Tis but lately our people have informed ourselves properly of its culture; and the more we know of that, the more reason we see to banish it the garden. It is hardy enough to bear the exposure, and it requires no great change in the culture; why then should we limit it to the garden? every particular speaks for its being given into the hands of the farmer, especially when near large towns, though everywhere there will be a great demand."

"We had the plant originally from North America. It is in a manner the food of the common people of Ireland, and is cultivated in Lancashire and some other parts of England, in vast quantities. Our interest is to make it more universal. Ten large potatoes is but a moderate produce from each small root that was planted in spring; when the ground is more favorable, thirteen or fourteen handsome ones; and in counting with the best possible exactness, in a field of Mr. Ryder's, near Thorpe, where every needful caution had been taken, we computed this year, 1746, that there were in general eighteen large and fine potatoes for every small root that was planted. This for a seven months' increase is very great; but nature has in all things provided, that what is most useful, is most abundant."

In almost every subject that is discussed, we have the right and privilege, where self-evident facts are not at hand, to resort to analogy. Now I would ask with all humility, what farmer is there, from Adam down to the present day, who would be considered a sane man, who invariably chose from his seed the very poorest and most imperfect, to carry on his operations of raising fruits, vegetables and grain, save and excepting the potato?

In England, while the question was under discussion, whether the potato was a garden or field vegetable, the directions for propagation were, to choose for seed the very poorest and smallest of the whole family, the smallest of the tubers. This was the way our ancestors treated this vegetable, which was truly a great gift from God to man. And the only saving item in the direction was, that these little worthless tubers were to be planted the last of February, and by the last of September, they were as reported "on Mr. Ryder's farm near Thope." An increase of "eighteen large potatoes for every small one planted."

And what was the first effect of this damning practice of poor seed? the curly leaf of the stalk, and an occasional diseased spot on the potato. The only wonder is, that disease did not take them sooner—seven months' growth is all that has continued them to this day.

Now let us look a little at the question in our own country. We have obtained seed from time to time from England, Ireland and South America, but how have we treated it? God knows we have followed in the footsteps of our illustrious ancestors, by generally selecting the very smallest tubers for seed, but with this exception, instead of seven months, they were allowed only four or five months to give their increase. The long, red potato was brought originally from the La Plata, somewhere about the year 1795. I think my father had that variety from the importers, and it has always been a favorite potato among farmers. But who ever saw them ripen! It is true, they never had a season long enough in this country; four or five months have been the time allotted them to do all their work, but this has been impossible; they occasionally rot, and one end is always watery.

If this country is not always troubled with an occasional disease of the potato, it would be strange, as our seasons are so short; but much may be done to overcome this disease, if not to entirely eradicate it. In the first place, select the first growth of the potato, the large and fair ones, for propagation, and plant as early as our climate will admit, on a soil plowed not less than twelve or fourteen inches deep, sixteen would be better, and well manured. This practice, followed for years, would, in some degree, restore the potato to its original growth and health. To effect the object of deepening the soil, the Canadian horse must be put before a pair of oxen measuring six feet, nine; with a plow that will go deep enough, and amongst the new varieties, there are some that will turn the soil that depth. It is now but a few years since I witnessed a plowing-match of a county society, with all kinds of teams, one horse, small, poor oxen, four year olds, and a committee smaller yet, saying that if any man plowed over *six inches deep*, he should lose his chance for a premium! Well, I walked over this plowed ground with something of the feeling a

man would have in walking over a battle-field, where he saw nothing but waste and destruction.

In selecting good seed, take the large and fair tubers that have had the full length of our season to grow in, which is always short enough And it is to my mind a self-evident fact, that ripe and mature tubers are better for seed than those half-grown and half-ripe ones, that are commonly used. Is it strange that potatoes raised under such circumstances, should not discover to the microscopist a "mare's nest?" I believe, in every thing that has vitality, there can be discovered in its very incipient stage of decay, myriads of insects so small that the microscope only could discover them, for life and mortality are intimately blended together.

Let any man turn to the pages of the *New England Farmer*, and he will there find strong arguments from strong men that small potatoes are just as good, if not a little better, for propagation, than large ones; then, carry the analogy through, and banish the whole race of first-class animals, and say that "like does not beget like."

What would you say of a man, who, in selecting his seed-corn, while he always throws the small end, the imperfect seed, to his hogs, and saves the remainder, should reverse the practice, and throw the best end to the hogs, and save the imperfect top-end for propagation? How long should we be able to exhibit our noble "King Philip corn;" would it not soon grow into poor Indian? When I hear men talk of propagating from poor, green seed, I can't but think, and with your leave, I will say it, there are more green things in existence, than is good for the progress of agriculture. ALFRED BAYLIES.

Taunton, Jan., 1859.

For the New England Farmer.

MANURES---PLANTING SQUASH SEEDS---APPLE TREES---HORSE FLOORS.

I like to read the discussions relative to manures. My experience in composting is this: Mix enough muck to take up the liquid; and that under cover in summer, haul out in the fall. During the winter, the frost working amongst it, I think adds one-fourth in value. If more earth is added to the green manure than just enough to take up the liquid, I consider that the time employed is thrown away, for when put on the land it adds nothing to the fertility more than if the manure and muck enough to absorb the liquid is put on. The freezing and thawing pulverizes, thereby putting it in condition to be taken up by the roots of the plants. If you take green hog manure and plant on it, ten to one the seed will not sprout; but freeze and thaw it a few times so that it is fine, and there will be no trouble about germinating the seeds. The air, also, has a beneficial tendency upon it, penetrating and driving out those caustic qualities which are deleterious.

For most plants, manure ought to be more than one year old, and in a fine state. I find that in those places where old manure is used, when the plants begin to start, they grow more evenly. In planting squash and pumpkin seed, the last season, those laid down flat in the hills did better than those planted edgewise; the first threw off the skin of the seed without injury; in the other way, almost every one was injured by retaining the skin upon the leaves.

Those of my apple trees, where I allowed the limbs to come near the ground, I find stand the cold better, and are not scorched by the sun around the body of the tree. I also notice that the lower limbs bear the largest fruit.

I have done away with stalls for horses, and I find that pens where a horse can put himself into such a position as he wishes to, are more conducive to health. The floors should be perfectly level, and should drain themselves by having herring-bone gutters cut in them, as there is nothing more fatal to the eyes of the horse than the ammonia generated under them. S. P.

Cape Elizabeth, Feb., 1859.

For the New England Farmer.

FALL TRANSPLANTING.

MR. EDITOR:—I notice in the December number of the *Farmer* that a correspondent at Ware favors *Fall Transplanting*. It is a *fact*, that almost all my asparagus roots which were transplanted in the fall of 1857 died; and that 50 two-year old plants, set out the 27th of last July in the same bed, grew well. I do not mention this supposing it the best time, but to show that they may be transplanted so late, in favorable seasons.

The fate of the grape vines transplanted by so many different persons, I thought a strong argument against fall transplanting, for probably they were not all careless in setting them out; and the vines, I think, must have been good, or they would not have kept green so long. I saw all the vines; the roots had a great many small branches to them. It appears to me reasonable to suppose they would recover from the wounds, and start better in the spring, when the ground is getting warm and the plants waking up their energies for the season's growth. I had the list convenient, and have just been to the people who bought the vines; and I send you a copy showing their replies in answer to the question, "Did their Hartford Prolific Grape-vine live?"

LIST OF VINES AND RESULTS.

No. of Vines.	*Replies.*
No. 1....1....	Started late and grew a little.
" 2....2....	One leaved out a little very late, and the other did not start, but the vine is still green.
No. 3....1....	Did not start, but stem is green.
" 4....1....	Died.
" 5....1....	Started towards fall and grew a little.
" 6....2....	One died and the other started late and grew about two inches.
" 7....1....	Died.
" 8....1....	Died.
" 9....1....	Died.
" 10....1....	Died.
" 11....1....	Died. (Mr. Chapin bought also one from same nursery, *this last spring, which started well and made a fine growth.*)
" 12....2....	One died, the other grew moderately well.
" 13....1....	Died.
" 14....1....	Died.
" 15....2....	Both died.
" 16....1....	Died.
" 17....1....	Died.
" 18....2....	Both started late and grew feebly.
" 19....1....	Died.
" 20....1....	Died.
" 21....2....	Both died.
" 22....1....	Started and did pretty well.

Worcester Co., Dec., 1858. O.

For the New England Farmer.

THE HUBBARD SQUASH.

MR. EDITOR:—I received last spring from Mr. Gregory, of Marblehead, who I believe has the honor of first introducing the Hubbard squash to public notice, one dozen seeds, which I planted in the usual manner of planting squashes, in a rich, loamy soil, just turned from the green sward.

From these twelve seeds, after the usual attention to weeds and bugs, I gathered eighty pounds of squash, which I suppose is quite above the average yield of the Marrowfat or Crookneck, in similar localities.

It is, however, for another purpose that I write this. I wish to know if any of your numerous experimenters in these things have noticed that the Hubbard is less subject to decay than either the Marrowfat or Crookneck?

Several barrels of other kinds in the same celler have become rotten, while scarce a speck is seen on the rind of the Hubbard.

I suppose fifty per cent. of Marrowfat squashes put into cellars or stalls for winter consumption, decay before they can be used or sold. If what has been true with me in this respect, is a general fact, it constitutes an important consideration in favor of this kind, making really fifty lbs. of the one worth seventy-five or one hundred of the other.

Hoping to hear from those who have cultivated more extensively than myself, and thanking Mr. G. through your paper for his favor, I remain,

Natick, Jan., 1859. OLIVER N. BACON.

MR. MORRILL'S LAND BILL.

Washington, D. C., Feb., 1859.

The Agricultural College bill, introduced by Mr. Morrill, of Vermont, which passed the House by a large majority at the last session, has run the gauntlet successfully in the Senate, and to become a law awaits now only the concurrence of the House in one or two amendments, and the approval of the President.

In its original shape the bill provides for the donation of public lands to the several States for the encouragement of agriculture and the mechanical arts, in the proportion of 20,000 acres to each Senator and Representative to which they are now entitled. All States which contain within their own boundaries the requisite quantity of public lands, of the value of $1,25 per acre, are to receive them for the purposes of the bill; those States which do not, are to receive land scrip to the amount of their respective shares. The proceeds of the sale of these lands and scrip are to be invested in stocks yielding at least 5 per cent. annually, and constitute a perpetual fund—

"The interest of which shall be inviolably appropriated, by each State which may take and claim the benefit of the endowment, to the support and maintenance of at least one college, where the leading object shall be, without excluding other scientific or classical studies, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

Certain conditions are attached to these grants, to which the assent of the several States, by legislative enactments, is required. They are:—

That "all the expenses of management and superintendence of the lands, previous to their sales, and all expenses incurred in the management and disbursement of the moneys which may be received therefrom, shall be paid by the States to which they may belong, out of the treasury of said States, so that the entire proceeds of the sale of the lands shall be applied without any diminution whatever to the purposes mentioned."

That "any portion of the fund invested, as provided, or any portion of the interest thereon, shall, by any action or contingency, be diminished or lost, it shall be replaced by the State to which it belongs, so that the capital of the fund shall remain forever undiminished; and the annual interest shall be regularly applied, without diminution, to the purposes mentioned, except that a sum, not exceeding ten per cent. upon the amount received by any State under the provisions of the act, may be expended for the purchase of lands for sites or experimental farms, whenever authorized by the respective legislatures of the States."

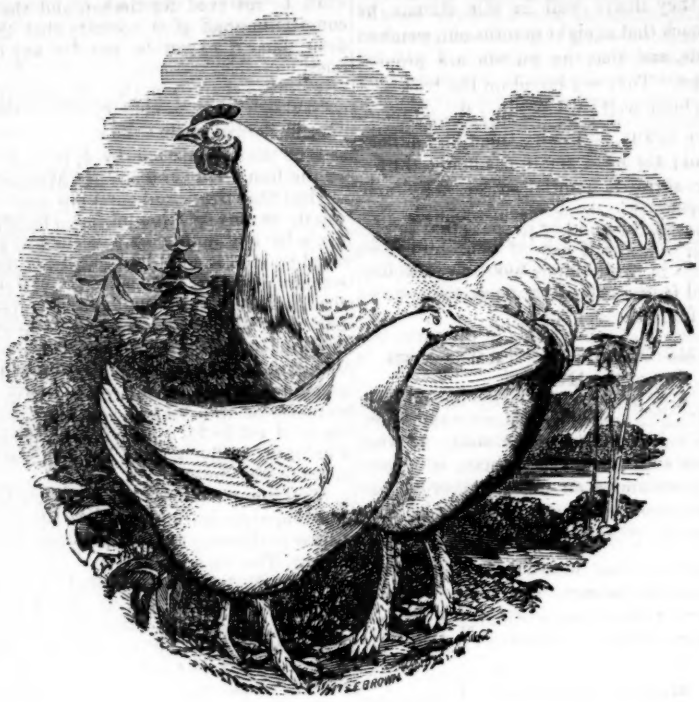
That "no portion of the fund, nor the interest thereon, shall be applied, directly or indirectly, to the purchase, erection, preservation or repair, of any buildings."

That "every State which may claim the benefit of the provisions of the act shall provide, within five years, at least not less than one college, as described, or the grant to such State shall cease; and said State shall be bound to pay the United States the amount received of any lands previously sold."

And that "an annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their cost and results, and such other matters as may be supposed useful."

Although the bill has been so long before Congress that almost everbody is acquainted with its general purport, I have thought the foregoing minute recital desirable in view of the apparent certainty of its passage. The amendments adopted by the Senate, are entirely consistent with the intention of the bill. They include Minnesota among its beneficiaries, that State not having been admitted into the Union at the time the bill originally passed the House; they make an additional grant of 20,000 acres for each Representive to which any State may become entitled under the census of 1860 in addition to its present number, but they do not, of course, make any corresponding deduction for any diminution in representation which any State may sustain; and they except mineral lands from the provisions of the bill.—*Boston Daily Advertiser.*

LICE ON CALVES.—A number of years ago, I had a yearling that grew poor, and I could not help it. Its breathing became so loud that it could be heard several rods. I thought it would die. One of my neighbors told me he had heard that sour buttermilk was good. I procured some, and washed it from head to foot, and in three days his breathing was very regular, and he was as smart as need be. I had no more trouble with him.—*Rural New-Yorker.*



A PAIR OF WHITE SHANGHAE FOWLS.

The furor which passed over the country a few years ago, and touched nearly every class of our people, in relation to the profits and various breeds of poultry, has now subsided into the "sober, second thought," and all are in a position to judge more considerately of what is prudent and pleasant to be done in this part of our domestic economy.

The farm, certainly, would not be complete without poultry, as there would be considerable loss in some of its products without it; and the farmer's family, away from markets, could not be accommodated with the eggs and flesh of poultry, unless they are produced on the farm. The *convenience* of these things is frequently of more consequence than their actual value.

There will be no doubt about the *profit* of keeping poultry on the mind of those who keep strict accounts; that is, if they manage them judiciously. They do not need a palace, and will not lay any more, or any larger eggs, in such a place than in a pen, provided the latter is light, dry and warm. They require a variety of food, both vegetable and animal, and convenient places for laying, sitting and roosting, and under such circumstances will yield twice or three times as much profit as the same amount of capital invested in any other stock on the farm.

But it is not on the farm, only, where poultry yields the most pleasure or profit. In the city, they afford the most agreeable "rural sights and sounds," and have a happy influence upon the family, especially its younger portions, beside the convenience and profit derived from their flesh and eggs.

We are not able to say which, of all the varied breeds, are the *most* profitable, and shall therefore introduce to the reader some spirited engravings of several varieties, with such descriptions as we can give of them from personal experiences and the records of them by others.

The cut now introduced illustrates a pair of pure *White Shanghae Fowls.* They are entirely white, legs usually feathered. Their eggs are o. a nankeen or dull yellow color, and blunt at both ends. Dr. EBEN WIGHT, of Boston, a gentleman eminently qualified as a judge of poultry, says of this variety:—These fowls are not sluggish or stupid; on the contrary they are intelligent and confiding, and are invaluable for the

purpose of raising chickens. He says they rank among the largest coming from China, and as a proof that they thrive well in this climate, he mentions a cock that at eight months old, weighed eight pounds, and that the pullets are proportionably large. They are broad on the back and heart, with a body well rounded up; the plumage white, with a downy softness; the tail feathers short and full; the head small, surmounted by a small, single, serrated comb; wattles long and ide, overlaying the cheek-piece, which is also ge and extending back on the neck; the legs e of a yellow hue, approaching a flesh color, nd feathered to the end of the toes.

PREMIUMS ON FOREST TREES AND FARMS.

The *Massachusetts Society for the Promotion of Agriculture* has offered a premium of *one thousand dollars* for the best plantation of forest trees, and a premium of *five hundred dollars* for the best conducted farm. These offers are in keeping with the liberal spirit which has ever been manifested by this association to promote the interests of the farmer. Its work is in the right direction. It has given a stimulus to every part of the State within the last five years, by its judicious premiums upon dairy stock, and the Essays upon Manures, Agricultural Education and Market Fairs, and its aid to the State Board of Agriculture.

The offer of these premiums upon *forest trees* and *farms*, will probably be the means of setting a good many trees growing, and brush up and improve many farms that are now excellent, and improve hundreds more by the examples of neatness, system and thrift which will be established by these inducements to excel. We hope there will be an active competition for the prizes. They are as follows:

1. A premium of $1,000 for a *plantation of forest trees.*

"The above sum is offered for the best plantation of trees, of any kind commonly used for, and adapted to, ship-building, grown from seed planted for the purpose, or otherwise, on not less than five acres of land, one white oak at least to be planted to every twenty square yards. Notice in writing must be given to the Secretary of the Society, on or before January 1, 1860, of the intention to compete for the premium, stating where the land is situated, the nature of the soil, and what has been done in relation to the plantation up to the time of giving notice. The premium will be awarded in 1870, in case the success of any competitor has been such as, in the opinion of the Trustees, or of those appointed by them to adjudge the same, or give a reasonable probability that the plantation will produce eventually a fair supply of ship timber, in proportion to the number of acres planted The Society likewise claims the right, after awarding the premium, to designate from time to time what trees shall be reserved for timber, and the successful competitor shall give security that the trees so designated shall not be cut for any other purpose."

2. A premium of five hundred dollars for the best conducted farm.

"The above sum is offered, in one premium, for the best conducted farm in Massachusetts, of not less than forty acres, taking into consideration the mode of cultivation, farm building, breeding, selection and keeping of stock. Farms, devoted to market gardening, will not be admitted to competition. The Trustees reserve the right of withholding the premium, in case no farm offered shall be considered worthy of it, and also of dividing it, in case no one farm shall be considered decidedly the best conducted. Notice of intention to compete for the premium must be given to the Secretary of the Society, *on or before the first day of April*, 1859, accompanied by the payment of an entrance fee of ten dollars. A written statement, verified by the oath of the competitor, will be required, containing an accurate statement as to the management of the farm, with an account in figures showing the results of the year's operations. The account to commence on the first day of April, 1859, and to terminate on the thirty-first day of March following. All farms entered for the premium shall be subject to the visits and inspection of the Trustees, or by others appointed by them for the purpose. No Trustee or officer of the Society will be allowed to compete."

For the New England Farmer.

WHEN AND HOW IS IT BEST TO TRIM APPLE TREES?

So many and such varying opinions are expressed on this subject, that it is easy to find texts for any theory. But the question still recurs, which is the best way to trim them, and what is the best time to do it? The best way of trimming is to clear out all useless and cumbersome limbs, all decayed branches; all such as impair the form of the tree; always having regard to the peculiarity of its growth. Some kinds of fruit trees are inclined to form their tops by rising in a conical form, as the Pickman Pippin, for instance; while the Roxbury Russet spreads out like an open umbrella—its branches, when loaded with fruit, bending to the ground. Regard, therefore, should be had to the kind of fruit expected to be grown. The most productive orchard I have witnessed is on the farm of Mr. E. Ware, of Marblehead, whose trees have been growing in their present position about thirty years; their limbs now extend twenty feet or more, and completely cover the ground. The earth has been fertilized and pulverized by the running of swine freely in the orchard. The fruit is large and fair, and the trees have suffered very little from insects or vermin of any kind. How these trees have been trimmed I have not been advised; but I think very little trimming has been done upon them. They have always been thrifty. P.

March 1, 1859.

MASS MEETING AT SUDBURY.

The citizens of Sudbury had a meeting Feb. 3, in the Town Hall, regularly called by warrant, to devise measures to call the attention of the Legislature to their overflowed lands, at which the selectmen were authorized to petition, commence suits, or do whatever seemed desirable to abate the evil. On Saturday, the citizens again assembled, and were joined by persons from most of the neighboring towns. The meeting was called to order by Capt. WM. RICE, and SAMUEL PUFFER elected Chairman, and J. PARKER FAIRBANKS, Secretary. After a brief reference to the Town Meeting on Thursday, the chairman of the Executive Committee of the *River Meadow Association* was called upon to report what progress had been made in certain duties with which it had been charged. He stated that several meetings of the Committee had taken place, that a large sum had been pledged to defray the cost of suits, printing, counsel, or whatever other expenses might accrue. He also stated that word came to him from various portions of the State, encouraging and urging on the movement, because they say it exposes evils common in every part of the Commonwealth.

Dr. J. REYNOLDS, of Concord, spoke of the great depreciation of the lands in question, and illustrated his point by reference to similar damage on Ipswich River, and of the attempted redress by the owners. He said the old Middlesex Canal Company had enjoyed its privileges fifty years, and then sold them out to another party for a song, and sold out *the rights of our citizens* with them.

Col. DAVID HEARD, of Wayland, then gave a detailed and clear statement of the rise of one of the dams at Billerica, and the reservoirs at Hopkinton and Marlboro', and the immense damage occasioned by them in the depreciation of lands and the diseases generated by their miasma.

Capt. WM. RICE, of Sudbury, said he had known the meadows for seventy years—fifty years ago they were very valuable; then a horse could be gallopped across them from shore to river bank. People often came from Framingham and paid $10 a ton for the hay that grew on them. There is a great deal of land that people don't call meadow that is nearly ruined.

Mr. THOMAS BATTLES, of Sudbury, said the best meadows, thirty years ago, were worth $100 an acre, and that some of them cannot be sold for a single dollar an acre now!

Mr. HORACE HEARD, of Wayland, said, these lands, in 1813, were worth more than the uplands; that at the death of his father, the meadows were appraised at as high a price as the best uplands with the buildings on them! He said the people of Wayland petitioned in favor of the Boston Water-works, because they were told they would divert the water from the Sudbury river that flows in from the Cochituate lake, and thus, in some degree, relieve their lands.

Mr. E. STONE inquired of Mr. Heard, whether the water from the reservoir operates as injuriously now as it has heretofore? Mr. H., in reply, said it did. There is no diminution of damage.

Mr. J. P. FAIRBANKS said if the people could believe that any remedy was at hand, they would pour out their money to prosecute any lawful means of redress,—but they had suffered so long, and the laws or charters were so unjust and oppressive, that hope had become nearly extinct. Still they were ready to *act*. Within his recollection he had known these meadows rented at the rate of ten acres for ten successive years for $1000! Now the same lands are a curse to the owner, and to those who live near them! Three years ago, he had great promise of a cranberry crop, but the floods destroyed so many that he got but forty out of two hundred bushels—and this evil is now annual. Floods come upon us when no rain falls, and the drier the time the larger the flood, so that on farms where they have gathered 500 bushels of cranberries a year, they do not get enough now to make sauce for a Thanksgiving dinner! Five thousand dollars' worth of this healthful and valuable fruit is annually destroyed by these floods, and this source of income cut off from our people.

Mr. S. BROWN, of Concord, said, annual losses, similar to those mentioned by the last speaker, were realized by most of the towns in the valley of the Sudbury and Concord rivers. He believed that neither the Legislature nor the people of the county, were aware of their extent. He was told that two or three individuals were permitted to cause these damages through the potency of certain charters—charters that cannot be revoked, though they swallow up your lands with floods, and scatter disease and death over the fair homesteads of our people. He did not believe in such charters—they appeared to him more like certain things that had been done "by the divine right of kings," or the monopolies of Henry VIII. or Elizabeth, in conferring upon some favorite a monopoly of wine sales, or silks, or salt. If some blundering Legislature had conferred privileges upon corporations inconsistent with the rights of others, a wiser one should take instant steps to correct the error, rather than by unfair limitations cut off the people from every source of redress. He did not believe *a single vote* could be obtained in the present Legislature to grant such monstrous powers as were said to be conferred in the charters to which he had alluded. He had not examined the charter of the

old Middlesex Canal Company, but was told by those who had, that it restricted the company to no limits except those of the State itself, and that it could traverse at will over any person's domain, wherever it saw fit to go! Mr. B. spoke at considerable length on other points.

Mr. FAIRBANKS was glad to learn that the Executive Committee was active, and had consulted counsel. The town of Sudbury was ready to act—the selectmen had been authorized to employ counsel and prosecute whenever they thought proper.

Rev. ISAAC JENNISON, of Natick, said a meadow which he could have once sold to a gentleman now present for $90, he could not now give away to the same person! He wished the movement success, and was ready to expend time and money to get it.

Several other persons addressed the meeting with great enthusiasm, and after the passage of the following votes the meeting adjourned.

Voted, That the memorial now in preparation by the Committee, be signed by the Selectmen of the several towns on the river, and presented to the Legislature in behalf of these towns.

Voted, That the Executive Committee be authorized to print any matter that they may deem important to promote the cause.

EXTRACTS AND REPLIES.

LEACHED ASHES ON A CLAY SOIL.

Will leached ashes benefit a clay soil? I make this inquiry because large quantities of ashes are lying in several places in this vicinity, and might be procured at a very low price, probably for drawing. AQUILA.

Feb., 1859.

REMARKS.—Leached wood-ashes are regarded as the most beneficial to clayey soils. The high temperature at which wood is commonly burned, causes a greater or less portion of the potash and soda to combine with the silica, (sand,) and form insoluble silicates, which remain behind along with lime and other earthy matter when the ash is washed with water. These are just what the clay soil needs.

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HUNGARIAN GRASS.

In your paper of the 5th inst., I noticed an article on "Hungarian Grass Seed;" will you please advise me at what season of the year it should be sowed; how much does it require per acre; is once sowing sufficient for more than one crop; what particular advantage will be derived from its cultivation, instead of other grass; in short, tell us all you know about it.

Charlotte, Vt., Feb., 1859. T. D. CHAPMAN.

REMARKS.—We are told by those acquainted with this grass that the same rules observed in sowing herdsgrass seed are applicable to the Hungarian grass, as to soil and season. From 12 to 16 quarts of seed are used, per acre.—Good land for herdsgrass or red top, is suitable for this. If the grass is intended to be used for green fodder, sow a little thicker than when it is to be made into hay—and if for seed, do not crowd it.

"E. P. M——t, of Cambridge, Vt.," will please consider this in reply to his inquiries.

We advise our friends not to be over sanguine about this new grass. Test it, by all means, but in a small and careful manner. There are a thousand idlers ever standing ready to get a living out of the earnings of the farmer, and sing such syren songs as are apt to make too many persons think that all is gold that glitters. Sow a quart of seed this year, and note the results carefully. If it does well, continue it; if not reject it.

—

MANGOLD WURTZEL.

In a former number of the *Farmer*, I noticed a finely written article from Mr. French on the cultivation of the above root in Europe; from his speaking of their roots "running down to the bottom of a drain four feet deep," he, of course, refers to the long, fibrous variety. A friend of mine informed me, that in his tour through the sugar districts of France, a few years since, the Orange Globe variety was in high repute for the feeding of neat cattle; that it was considered vastly better than the tap-rooted, not only in being of a finer grain, but that it was harvested so much easier; from his recommendation, I obtained a few pounds of the seed, which was sown on my farm at Framingham with good success; my neighbor, an experienced farmer, was so much pleased with this root, that he now cultivates it in preference to almost any other root for his cattle. I.

—

MILK, PRICE AND MEASURE.

I was greatly rejoiced to see an article on the *price and measurement of milk*, in your last paper. I had concluded we were some of the most duped people in the world, for we are so fascinated with this milk fever that we believe away up in New Hampshire, forty miles from market, if we should patronize our milkmen faithfully, we were on the sure road to fortune. Many of our farmers are enlisted in the enterprise and all are losing money, every day. We do not know what *quantity* we are selling for a gallon, nor the consumer in Boston what he is using that he calls milk! A SUBSCRIBER.

Derry, N. H., Feb., 1859.

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EQUALITY ILLUSTRATED.

$12,000 a year is annually paid from the Treasury of the State for the support of experiments in culture, whereby the people of the State are sustained; $60,000 a year is annually paid for sustaining the military of the Commonwealth, whereby their vanity is inflated, their morals depraved, and their lives destroyed.

It is respectfully suggested that these topics be referred to the joint consideration of the House Committees on Agriculture and on the Militia—and that the great gun of the House be instructed to report thereon. ☞.

Jan., 1859.

CULTURE OF THE MANGOLD WURTZEL.

Was Mr. Leonard Wray's lecture on the mangold wurtzel, delivered before the Legislative Agricultural Meeting in Boston, last winter, published in full, and if so, where can I obtain it?

On a farm I owned in Rhode Island, I succeeded in getting 1000 bushels and upwards to the acre; once I got 1500 bushels; once 3,337 bushels from three acres, 58 pounds to the bushel. JOSEPH COE.

Rochester, Mass., 1859.

REMARKS.—Mr. Wray's lecture was partially reported for our columns—we have not seen it in any other form. We have sent you, per mail, a copy of our May number for 1858, containing some things that may be useful to you.

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BREAD AND SALT.

I was much interested in an article in your paper some time since, from Dr. Alcott, on the subject of bread-making. I have repeatedly tried unleavened bread or cake, (mixing rather dryly with cool or cold water, sometimes adding a little dry snow for leaven,) and marking it off into narrow strips. I like it much. Think the marking into strips before baking an excellent idea, and am much obliged to the doctor for his article.

Query.—Does the doctor really believe that the great fondness of man, and some other animals, for salt, is no evidence that it is a suitable article for use? A READER.

—

OSAGE ORANGE HEDGE.

Will you, or some of your readers, inform me whether the Osage Orange hedge will grow and flourish as far north as the northern part of Sullivan county, N. H.? L. RICHARDSON.

West Springfield, N. H., Feb., 1859.

REMARKS.—It is quite uncertain whether the Osage Orange would answer for hedges as far orth as your locality—we think it would be better to use some other plant, your common hemlock, for instance, if you desire something of the character of the Orange. The hemlock is graceful and beautiful in itself, is hardy, of course bears pruning, and makes a tasteful and attractive hedge. It would hardly answer, however, for fencing.

—

DEMOLISHING ROCKS.

In levelling a small hill, this winter, I exposed some troublesome looking rocks. I exhausted my small stock of patience in blasting, breaking, burying, etc., and then thought I would try fire and water. I collected a good quantity of brush, weeds, leaves, in fact everything and anything that would burn well. I now made and kept a brisk fire upon and around the rock to be removed, and as soon as it was thoroughly heated (it takes only an hour to heat a rock of about three or four tons) dashed on a few buckets of cold water and to my delight, saw the rock fall to fragments. OAKLAND GROVE.

Winchester, Mass., 1859.

WOOD ASHES.

Please inform me whether *wood ashes* exhausts the land to which it is applied? S. E. Y.

Warren, Mass., Jan., 1859.

REMARKS.—Wood ashes undoubtedly acts as a stimulant in the soil—it probably acts upon the sand, even, making it solvent and fit to be taken up by the plants, covering their outer surface, stiffening and strengthening them so that they are able to stand up. In this way it makes the soil *act*, and be useful to the plant. Do not let the fear of its *exhaustive* power prevent you from using it.

—

LAME HENS THAT DIE.

Will you inform me through your paper of the cause of the lameness of my hens? I have lost since last fall, from fifteen to twenty. In the first place they are taken lame in one leg, and in two or three days the other leg is lame, so that they cannot go, and will lie down; in two or three days after they become lame in both legs they die. My hen-house is built of stone, and the top roosts are about six feet high. The ground is covered with loam; I feed them morning and evening on corn or dough, and they have enough to eat; they do not appear to be in any pain, nor do they grow poor, but are generally fat when they die. O. H.

Raynham, Jan., 1859.

REMARKS.—Cannot enlighten you—never have witnessed such cases.

—

A TURKEY CROP.

I have male turkeys that came out in June, that weigh *twenty-two* pounds; a lighter one, when dressed, weighed 17½ pounds, and a young hen-turkey, dressed, between eleven and twelve pounds. CHARLES H. STODDARD.

East Brookfield, Mass., Feb., 1859.

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A BIG PIG.

I slaughtered a pig nine months old, on the 24th inst., which weighed three hundred and thirty pounds. GEORGE HASKELL, JR.

Essex, Jan., 1859.

For the New England Farmer.

"CORN AND CORN STALKS."

MR. EDITOR:—In the weekly number of the *Farmer* for Jan. 22, an article appeared with the above caption. It seems that the writer of the article referred to, has not succeeded to his mind in the new method of harvesting the corn crop, and for the very reason, as I believe, which he has given, namely, that of cutting up the corn, when it was half-matured, which would naturally give to the corn less weight, and the pale color of which he speaks.

My experience has been very different from that of friend Bacon, as I have practiced cutting my corn to the ground, and shooking, for the last six or seven years, and without any of the serious objections which "W. B." mentions. I believe in the proverb, that there is a time for every thing, and that the time for cutting up corn

to shook, is after the ear becomes well glazed, or in other words, after the stalks are fit for topping. Corn cured in this way, is not only sweeter for bread, but the fodder is worth one-fourth more, at least, than when left to the exposure of the atmosphere. I agree with "W. B.," that, the idea of raising corn is for the grain, but if I can get the extra grain, (as I think if he would take the pains to inquire of those who grind my corn, they would tell him it was second to none,) and the extra fodder, I have secured a greater amount of good, than he who lets his fodder stand and bleach in the field until it is nearly worthless.

If friend "B." will try my way, I think he will meet with better success, and be able to have his "old-fashioned golden puddings again under the new innovation." A. W. PUTNAM.

Sutton, Jan. 24, 1859.

For the New England Farmer.

EDUCATION AND EMPLOYMENT OF YOUNG MEN IN THE COUNTRY.

MR. EDITOR:—The education and employment of young men in the country is closely connected with our agricultural interests. It is evident that our country towns are losing their population for the reason that our young men leave them for the purpose of gaining a popular education, tending to fit them for any other purpose than the farm. I do not wish to cast reproach on the cause of education. But would it not be better if our institutions of learning were so constituted as to turn the minds of some of their pupils to the pursuits of agriculture? Should not our schools be made manual labor schools; schools which will fit young men for the farm as well as for a profession? I think they should. But considering our means of education as it is, I think our young men may, if they will, furnish themselves with a good practical agricultural education.

Your readers may say that I desire to make all our young men farmers; but not so. We must have teachers, competent teachers, and a liberal supply of them. We must have professional men; but one-half of the number which we now have, and those of the right character, would be far better than the present number. More of our people should be practical farmers. I am a farmer's son myself, and I appeal to those of my class in New England, if it would not be better for more of us to obtain an education preparatory to a farmer's life, than for so many of us to strive for a profession. There is another thing which tends to decrease the interest in agricultural pursuits. Too many of our young men, leaving the farm in pursuit of more fashionable life in cities and large country towns, leave the disgraceful work of farming, as they call it, and repair to a clerkship, and for a year or two work merely for their board, rather than stick to the farm. Let us strive, one and all, to alter this state of things; let us set our hearts and hands to work, and soon our barren fields will be cultivated, our decaying pastures clothed anew with grass, and New England may look forward for a pleasant and prosperous future. W. M. L.

Sullivan, N. H., 1859.

BOTH SIDES.

A man in his carriage was riding along,
A gaily dressed wife by his side;
In satin and laces she looked like the queen,
And he like a king in his pride.

A wood-sawyer stood on the street as they passed;
The carriage and couple he eyed;
And said, as he worked with his saw on the log,
"I wish I was rich and could ride."

The man in the carriage remarked to his wife,
"One thing I would give if I could—
I'd give my wealth for the strength and the health
Of the man who sawed the wood."

A pretty young maid, with a bundle of work,
Whose face, as the morning, was fair,
Went tripping along with a smile of delight,
While humming a love-breathing air.

She looked on the carriage; the lady she saw,
Arrayed in apparel so fine,
And said in a whisper, "I wish from my heart
Those satins and laces were mine."

The lady looked out on the maid with her work,
So fair in her calico dress,
And said, 'I'd relinquish position and wealth,
Her beauty and health to possess."

Thus it is in the world, whatever our lot,
Our minds and our time we employ
In longing and sighing for what we have not,
Ungrateful for what we enjoy.

We welcome the pleasure for which we have sighed,
The heart has a void in it still,
Growing deeper and wider the longer we live,
That nothing but Heaven can fill.

For the New England Farmer.

EXPERIMENT IN HARVESTING CORN.

I beg leave to differ from W. Bacon on this subject. I well recollect in my early days that corn, where I then lived, was harvested by first cutting the stalks, and I then knew of no better way, that being some fifty years since, in the town of Winchester, N. H. Since that time I think I have found a better way.

As it regards cutting stalks, I think they will no more than pay for the labor; if the field is large, it is attended with much labor to carry them out of the field to set up to dry. I think I should do quite as well to cut hay at the halves. Should there come a hard frost before the corn gets fairly ripe, it would be much injured. In this vicinity, we usually have a hard frost on or about the 20th of September. If the stalks are cut soon after the corn begins to glaze, as has been the practice with some, it lessens the corn one-eleventh part from that of letting them be on till ripe; it also leaves the corn more exposed to cut off the tops, than it would be with them on, should there be a frost before the corn was ripe. If it stands till it would not shrink in drying, it would be bad policy to first cut the stalks, because it is more work than it is to cut all up together, and you save only about one-fourth of the fodder, and not the best part, for that which comes up at the roots last, called suckers, is much the best, being the greenest and richest. In cutting up the corn and stalks together, there is a great saving both in time and value of both corn and fodder. At the price hay is selling for here now, $13 per ton, and as the

fodder growing on one acre of land where the corn will yield 50 bushels per acre is worth one ton of good hay, we gain some $12 or more in harvesting of one acre of good corn, over that of cutting the stalks. I know not why a dollar's worth of hay or corn fodder is not as good as a dollar's worth of corn.

All grains are better to be harvested while the sap is in the straw or stalk, and I know of no one in this section of country that questions this theory, millers not excepted; it is much more delicious and rich, and makes the best bread. I have experimented some few times by letting six rows stand, for the purpose of seeing the difference, in hopes that it would dry off best by standing uncut on the hill, while the rest of the field was cut and bound, and well set up, and in each and every time, that left standing was not as good, was not so yellow, and had much more poor corn, and the fodder the same as lost, hardly worth cutting up at all. In cutting up corn, care should be taken to see that the butts are laid down, so that the bundles will set up well. Bind of the size to have six bundles make one bushel of ears when husked; set six in a stack, two abreast and one at each end, tie the tops together, and they will cure well. In this way, I harvested my corn this last fall, and it is most bountiful, not one-fourth of a bushel but what is fit to grind for family use, and now weighs 64 lbs. to the bushel. My stock eat the fodder as well as they do good hay. I saw one old gentleman last September cutting his stalks. I inquired of him why he cut off the tops instead of cutting up at the roots? He said he was *brought up so*.

Roxbury, Vt., Feb., 1859. A. L. BRIGHAM.

For the New England Farmer.

POTATOES FROM SEED.

MR. EDITOR:—Seeing a piece in the *Farmer* for January 15th, from "S. S.," on raising potatoes from the seed, I thought I would send you my experience in that line, as it has been more satisfactory than his. In the year 1855, I found some very nice looking balls on the tops of a variety known here as the "Late Early Blue." I saved a few of them and planted the seed the season following, and two or three weeks after, the plants made their appearance, and grew very slowly all the season. I obtained enough potatoes from them to plant three hills, last year, (they were about the size of hazel nuts,) from which I got enough to plant thirty hills this year. These were about the size of walnuts.

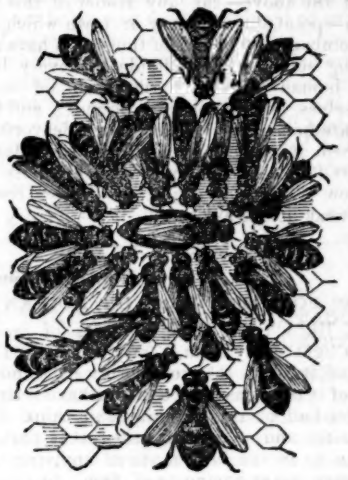
Those produced this season were most of them large enough to cook. I have cooked some of them several times, and they are very nice, fine grained, sweet, but not mealy; which I suppose is owing to their not having come to maturity yet, as it takes about seven years for that, I am told. They seem to be no particular kind, but possibly the qualities of various kinds. Most of them are long, with very deep eyes. Some of them are black, and some like the Early Blue; others look like the Early Blue in color; others are yellow. There were various kinds growing near those from which I took the seed. I have found none of them affected by the rot.

Yours for improvement,

Keene, N. H., 1858. A. H. KINGMAN.

KIDDER'S GUIDE TO APIARIAN SCIENCE.

This is another new work upon the Culture of Bees, by Mr. K. P. KIDDER, of Burlington, Vt., containing 175 pages, and illustrated with several engravings. In the cursory examination that



we have been able to give it, we find nothing remarkably new. But the directions for hive-making, for swarming, tending, &c., seem to be useful and clear. We have no doubt the book will be a useful one to the bee-keeper. Mr. K. is unquestionably devoted to his calling, and determined to understand it. The little cut we have introduced, illustrates a page of his pamphlet circular. His book is for sale at the bookstores in Boston. Price 50 cents.

PERHAPS WITTY, BUT NOT TRUE.

"Agricultural editors and professors, in the enjoyment of salaries, are almost the only men who think farming profitable."

The above is quoted from an essay published in the Transactions of one the County Agricultural Societies of Massachusetts. It is as discreditable to the taste of the writer, as it is without foundation in fact. The profits to be derived from any industrial pursuit, depend in a great degree upon the energy and good management of those engaged in it. That farming is an exception to the universal rule in all other business—that it can be made remunerative without the care, economy and skill requisite elsewhere, no one pretends. We have yet to learn an instance, moreover, when it has been thus properly carried on for a course of years, in which an ample and generous reward has not been returned for all the labor and expense bestowed. And what but farming has transformed the whole face of this broad land from a wilderness to fruitful fields? What, if not farming, has fed, and clothed, and schooled the masses of our people,—constructed our academies, colleges, churches, and public buildings,—yes, and built up the greatness of

our cities, by supplying them with fresh blood, and brains educated by its profits, and unweakened by their cares and dissipations? Agriculture is the immediate sire of commerce, and the wealth of the merchant finds its first sources in the wealth of the farmer. It is quite time such sneering assertions were discarded. Can the writer of the above—can any reader of this paragraph—point to a county or town which does not number more or less of those who have made farming sufficiently profitable for every legitimate human wish? Farmers should respect themselves, and honor their pursuit; and those who are honestly and earnestly endeavoring to aid them in rendering it still more productive, and its followers still more worthy of its high position, should be recognized as beyond the aim of so weak at attempt at ridicule.—*Country Gentleman.*

For the New England Farmer.

HOW TO TREAT EXHAUSTED LANDS.

MR. BROWN:—I have 30 acres of mowing land, a light sandy loam, nearly run out. I propose, as it used to grow corn well, to put 10 acres of it this season to corn. I have only manure for half of this quantity, and think of trying guano and plaster for the other part, and wish to know the best mode of applying these fertilizers, never having used them. *(a.)*

After the corn is off, how shall I proceed to get the land back to grass? *(b.)*

I also want to enrich and re-seed 10 acres more. Can I do it to advantage by sowing buckwheat or clover, and plowing in and seed down in the autumn? *(c.)*

Will it pay to put in rye, barley or wheat, and purchase fertilizer? *(d.)*

My object is to get the land back to its former condition as soon as possible. The farm has not been occupied or carried on for three or four years. MIDDLESEX SUBSCRIBER.

Feb., 1859.

REMARKS.—*(a.)* Some persons spread guano broadcast where the land is naturally moist, and derive considerable benefit from it for one or two years. This is the easiest and cheapest way of applying it. If put in the hill, there is danger of killing the young corn. If the kernel touches the guano it will not sprout—if it sprouts and the tender shoot reaches the guano, it is death to it.

(b.) If you desire to get corn land into grass by the quickest method, you can cultivate the corn field *level*, sow grass seed after the last hoeing in August, and rake it in or work it in at the hoeing, if there are not many weeds. This is a good way, because the corn shades the tender grass a little, and assists it considerably, if the season is a dry one. Where this is done we think it better to "cut the stalks" and let the sun in after the grass is fairly started. When the corn is removed it should be cut quite close to the ground, so that the stubble shall not be in the way of the scythe.

But if you do not like this mode, add what manure you can spare in the fall and plow it under, cross plow in the spring, and sow with wheat and grass seed.

(c.) Plow, and harrow once, then manure with guano, 500 pounds per acre, if you can spare the money for it, and if you cannot turn up less land—sow with clover or buckwheat, and when just going out of blossom, cut and let it two-thirds dry, and then plow it under. If you turn it under green, rapid fermentation will take place, throwing off the sugar and starch of the plant, its most important elements, and leaving comparatively little behind that is valuable. If dry, or nearly dry, when plowed under, fermentation and decomposition will be slow, the gases will be evolved gradually and absorbed by the surrounding soil, and enriching it for the plants that are to follow.

(d.) Under judicious management we think it will. The land has probably become exhausted of its vegetable matter, by frequent cropping, without much having been returned to it. Fill it with the roots of clover, or with its stems and leaves, or those of some other plant, then plow it deeper than usual, so as to bring up new earth that has not been exhausted of its mineral matter and you have a soil resembling that where a forest has just been cut off.

The object of gain sought must be, the *restoring the land, filling it with vegetable matter*, and *not* getting a crop. If the crop barely pays for the guano used and for the labor, it ought to be satisfactory. When the land is restored, it will yield profitable crops indefinitely, under proper treatment.

For the New England Farmer.

GRAIN CROPS.

MR. EDITOR:—I send you some extracts from an essay read by Mr. CHARLES A. HUBBARD, before the Concord Farmers' Club, on the evening of the 10th inst. I think they are worthy the attention of farmers in other parts of the State. Mr. H. is doing just what hundreds of other farmers should do.

"Wheat is but little cultivated in this section, but I have raised it to some extent for the last four years, with fair success. Four years ago I purchased a bushel of spring wheat, and sowed three pecks of it, on half an acre of good corn land, and raised twelve and a half bushels of excellent wheat. I sold eleven dollars worth of straw. The next year I sowed three bushels on an acre and a half of light sandy soil, generously manured. The manure was plowed in four inches deep. After the wheat had nearly covered the ground, I sowed on it ten bushels of ashes. The crop was 27½ bushels. The third year I sowed four bushels on two acres of heavy clay soil, but well-prepared. The crop was 47½ bushels of as handsome wheat as I ever saw. The straw I estimated at three tons, worth twelve

dollars a ton. I consider it worth two-thirds the amount of English hay. Last year, I sowed 1½ acres. The product was large in straw, but owing to the wet weather, the kernel was not as fair as usual. I am satisfied that I have been amply repaid for my experiments in raising wheat. I have bought but little flour the past four years. I usually get five bushels ground at a time. This will fill a barrel with flour. Then there will be a bushel of second quality, which makes excellent warm bread, a half a bushel of Graham flour, and the shorts or bran. The seed I prepare as follows: First I soak it 24 hours in strong brine, and then roll it in lime. Wheat I consider the very best grain to sow with grass seed when I wish to seed down to grass."

Yours, &c., JOS. REYNOLDS.

For the New England Farmer.

HON. MARSHALL P. WILDER ON PEARS.

I notice in the proceedings of one of the recent agricultural meetings at the State House, that the Hon. MARSHALL P. WILDER gave a list of those varieties of pears which he deemed best suited to the climate and soil of Massachusetts. No man can have a higher opinion of Mr. Wilder than myself. His efforts for the improvement of agriculture in general, and horticulture in particular, are worthy of all praise. His experience as a pomologist would also seem to give great weight to his opinions. Still, I must beg to differ with his deliberately expressed judgment in regard to the varieties of pears best adapted to our soil and climate. And I think if you were to take the testimony of any number of nurserymen in the State on the same subject, you would find no two of them were agreed in opinion. There are so many circumstances of soil, position, culture, &c., which go to influence the quantity and quality of the pear crop, that he who follows the advice of any one cultivator, will, nine chances in ten, fail in his expectations.

The list of pears referred to, as given by Mr. Wilder, is as follows:

Best Six—Bartlett, Urbaniste, Vicar of Winkfield, Buffum, Buerre d'Anjou, and Lawrence.

For Best Twelve—Add to the above, Rostiezer, Merriam, Doyenne Boussock, Belle Lucrative, Flemish Beauty, and Onondaga.

Best Six on Quince Roots—Louise Bonne de Jersey, Urbaniste, Duchesse d'Angouleme, Vicar of Winkfield, Buerre d'Anjou and Glout Morceau.

Now as to the Bartlett, the value of that pear is admitted. It is indispensable to every good collection. The Urbaniste is also a highly prized fruit, but on some soils it is, as every nurseryman knows, a shy bearer. The Vicar of Winkfield (its synonyms, *Clion, Le Cure*, mean the same thing, for Clion was the name of the vicar or curate of Winkfield, who originated the fruit,) is a good bearer, and a handsome pear for the market; but so far from rightfully pertaining to the six best varieties, it ought to be set down as from second-rate to poor. I never tasted one of these pears, that I considered first-rate; I have tasted a great many that were hardly fit to eat. The Winter Nelis is a better fruit, and so is the Beurre d'Aremberg. On warm soils, the Beurre Diel beats it "all to pieces." Ditto, ditto, the Easter Beurre. As for the Buffum, it is good in some localities, but not reliable in all. The Beurre d'Anjou promises well, but is not as yet fully tested. The Lawrence is a good fruit, but not in all cases a good bearer. In my judgment, the Beurre Clairgeau deserves a place among the "first six" in preference to any named by Mr. Wilder, except, perhaps, the Bartlett and Urbaniste; while the Louise bonne de Jersey ought to take precedence of all except the Bartlett.

When we come to Mr. Wilder's "best twelve," I should strike out the Merriam and the Onondaga (or Swan's Orange,) and retain the others, if not "counted out" by those I have named. The Doyenne Boussock is identical with the Gray Doyenne, and in my opinion, is only a modification of the old White Doyenne or St. Michael. Any one who will carefully examine the wood, the foliage, or the fruit, must come to this conclusion. How this modification has been brought about—whether by budding or grafting on the quince, the thorn, or the mountain ash, and then back again upon the pear—it is impossible to say; but the fact is "patent upon its face." The improvement is certainly an important one; for while the White Doyenne cracks badly both on the pear and quince stock, the Gray cracks only occasionally on the pear, and on the quince is a perfect and most exquisitely flavored fruit, such as was the St. Michael in its palmiest days.

As for the Glout Morceau, which Mr. Wilder puts down among the "best six on quince," I shall be better able to give my opinion of it, when I have raised the first specimen of the fruit. As yet, on pear or on quince, I have not been able to raise the first blossom of a Glout Morceau, though I have practiced all the arts of persuasion now known to me. I think this pear is generally voted a very shy bearer, and if Mr. Wilder has succeeded better with it than others, I must believe it an exceptional case. The quality of the fruit is admitted on all hands to be good.

But how is it that Mr. Wilder leaves out of his lists such pears as the L'Angelier, the Andrews, and the Beurre Gris d'Hiver Noveau? Either of these is a better pear, in my judgment, than one-half of those named in the above lists. So you see, Mr. Editor, that in the quality of pears, as in almost everything else, "doctors differ." My own practice is almost homœopathic, compared with that of Mr. Wilder; but my observation in regard to the pear culture has been pretty extensive, nevertheless.

I think much good would result, if those engaged in the pear culture would state, through the agricultural press, as nearly as possible, the quality of soil on which the different varieties have best succeeded. A "comparison of notes" in this particular, could hardly fail to add to the common stock of knowledge in fruit-growing. I am satisfied that there are several otherwise good varieties of pears which it is useless to attempt to cultivate on a clay soil, or where the argillite is a predominating element.

Somerville. E. C. P.

COLD WATER TO CURE SCALDS.—I placed a large tub full of cold water, with plenty of ice in

it, by the side of a large kettle full of water, which was boiling very fast. I then rolled up my sleeve above the elbow, and thrust it into the kettle of boiling water up to the elbow, then immediately back into the tub of ice water, letting it remain a few seconds, then into boiling water again, repeating this process ten times a minute, without injury or inconvenience, not even making my arm look red. From this experiment I suggested the propriety of using cold water baths instantly after being scalded. I have practiced the above remedy with entire success during the last ten years. Cold water is always handy where there is hot water. The sooner cold water is applied after scalding, the surer will be the cure.—*Ohio Cultivator.*

SEVENTH LEGISLATIVE AGRICULTURAL MEETING.

[Reported by John C. Moore, for the N. E. Farmer.]

The subject for consideration was "*Agricultural Markets and Fairs.*"

Ex-Governor George S. Boutwell occupied the chair; and stated in substance, that he had accepted the invitation of the committee to preside, with the view of assisting, rather than leading, the discussion. He would leave the last part of the subject to other gentlemen present. He had been acquainted with agricultural fairs, and would commend their adoption by the farmers of every agricultural town, as great benefit would result from them. They would furnish facilities for observation and comparison, which, from the nature of their occupation, they could not otherwise enjoy, and give them the same chances that manufacturers and others more fully enjoyed, and which were held by them to be so requisite and valuable. Such clubs would not conflict with the interests of county societies; on the contrary, they would assist them. They would operate in their effects like the meetings of which this was one. Education would have to be carried to the farmers, as they could not come to it with convenience to themselves, only as it was familiarly brought to the door, as it were, of their own experience. The State might do well to give some aid to the establishment of such clubs, as they would enable towns to compare their products, and prepare them to compete, by comparison, with other towns at county exhibitions, which too seldom showed what every portion of a county or district could produce, as they could be made to do.

Mr. Richard S. Fay, of Lynn, being called on to speak, gave his opinion concerning *Market Fairs*, which he held to be above fairs in importance, as they were, in reality, the true test of agricultural superiority. It surprised him that an English farmer could pay from $10 to $20 rent an acre, and yet live so differently from our most prosperous farmers. In the course of two years' residence in England, he had paid attention to the matter; and compared with the state of things here among our farmers who paid nothing per acre for their lands, it appeared a mystery. He had experimented somewhat during his residence in England, and found that prices of living were just about the same as here—so there could be no advantage to the English farmer on that score. He did not labor as the farmers do here; so the benefit from his farm could not proceed from his individual dexterity. The price of labor was, he found, about the same in England as here; so there would be no advantage to the Englishman in that respect. The expense of keeping cattle in winter was no more there than here; so nothing prejudicial to us could arise from that item. Every farming district had a weekly market once a week, where a ready sale was always had for his stock and produce, at almost the London market prices and everything done in a few hours that the necessities of the farm demanded. There was the combination of the farmer and the merchant which gave the producer two profits, which we had not the advantage of. Besides, the English farmer, when he put his plow into the ground, always had something like a certainty (such was the fine condiion of his soil,) that he would have a particular amount of produce. If Massachusetts were divided into districts—(and these announced in the *Farmer's Almanac*,) and market fairs established in each, it would be no longer necessary that every farmer should waste his time in cattle jobbing, or his means in hunting up cattle, to be obliged to make a questionable choice, after all his labor—great good would result. According to the nature of the productions of a locality, farmers and others could go and buy and sell with an assurance of a market, or the best the market could afford, and in this respect he would derive material benefit. Dairy cattle, horses, oxen, sheep, whatever was the prevailing produce, could be found in all the perfection in which the district could produce it; and, moreover, according to the quality would be the price and the benefit. Mr. Fay described one of the celebrated Falkirk Tryots in Scotland—where flocks numbering many thousands were brought together from all parts of the country, and, in the aggregate, numbered hundreds of thousands, which were sold to be driven to other parts of the kingdom, and as much as $500,000 left in payment thereof. Everything was done without higgling or trouble—with less effort than many farmers would have over the sale of a pair of oxen. In September and October, at the same place, 60,000 head of cattle were sold at each of the fair days, with as much quietness and dispatch. It was not to be supposed that this could be im-

itated here all at once; but were farmers willing to get up such fairs, they would find purchasers, and ready ones, too, and would learn to buy and sell, a system of education they stood much in need of.

CHARLES G. DAVIS, of Plymouth, was of the opinion that those who established such fairs as had been recommended would prove themselves the greatest benefactors of the farmers of New England. They would be found superior to all the shows, exhibitions and colleges that could be instituted. This being what he deemed an incontrovertible fact, the question arose prominently—*how could they be brought about?* The best initiatory process, in his opinion, was, to let every farmer lend his earnest personal influence to establish them. It was too true that farmers not only frittered away their time in petty peddling of small articles of stock, but also submitted too freely to the interpolation of middlemen between him and the consumer, to the prejudice of both. It was impossible that a farmer, with produce to sell, could tell what was, or what was not, the market price of any description of it, so long as he depended on the dicta of these peddling middlemen—who hindered the producer and the consumer from coming together and dividing the profits of labor and purchase. Were market fairs established, a different policy would be introduced; and it ought to be for the interest and advantage of both that they should join in the institution of such fairs. They would convince the Massachusetts farmer of what he was now in much doubt, that farming was a profitable occupation; and that where system prevails in working, buying and selling, it could be demonstrated to be so. Mr. Davis wished every one present, when they went home, to bring their agricultural friends together, and see whether they will refuse to sell to pedlers, and carry their produce to market on the market day; if they would so agree, they would soon realize the benefits. He mentioned that Mr. Fay, himself and another party had been chosen by the State Board of Agriculture to present this matter to the community, with the view that it should be brought to speedy perfection, were such the popular wish; and if any objections existed against the proposition, he hoped they would be heard here—provided any objector was in the audience.

Mr. DODGE, of Hamilton, (author of an essay on the subject under discussion,) said, at the first glance into it, he thought there were more reasons opposed than in favor of the proposition; but these were soon obviated by consideration, and the result of it was seen in the pamphlet which he had written, and which had been published. He would not repeat his opinions here; but it was enough to point to the establishment of the *Shoe Exchange*, in evidence that great results could flow from small beginnings; and if proved in the case of the shoe business, why should farming be an exception? Mr. Dodge, paid his respects to the pedlers and forestallers and exposed the disadvantages under which the farmer suffered at their hands. It was they who demonstrated to the farmer that there was no profit in his occupation; and the demonstration would continue until the forestallers were forestalled by regular markets, and regularly remunerative prices. As a sample of the operations of these parties, last fall—they made a raid into the rural districts and bought up all the apples they could find at $2 per barrel, and onions at $1,50. Now the former were worth $3,50 and the latter $3—and fast at that; but there the forestallers had previously got advantage of the producers. This should not have been; nor would it long be, were farmers only disposed to do justice to themselves, and establish market fairs.

JOSIAH QUINCY, Jr., made a humorous speech, showing the value of intelligence to the farmer—and especially that which associated itself with a proper market. The sentiments expressed this evening were precisely what every farmer should entertain and carry out into practice, to the discomfiture of the forestaller, who was the great public enemy, whether the producer or consumer was concerned. As one phase of the operations of this class, Mr. Quincy said, when he was Mayor of Boston, he was informed that more than 6000 pounds of poultry were thrown over the wharves into the sea rather than it should be in the market and lower the price! He thoroughly approved the proposition made to-night, and would give it his aid in every shape in which it would avail. He looked on it as being the most important one that had been made in his hearing, for a long time, and the public ought to be obliged to the gentlemen who had spoken for the interest they had taken in this essentially important matter.

JOHN BROOKS, of Princeton, spoke in favor of home markets, and argued that they would be found the most profitable—although he was not willing to be considered as an opponent of market fairs. Perhaps they would do as well as was anticipated. He was afraid that forestalling could be carried as well into a market as into a farmyard; and had some belief that farmers were not so very ignorant concerning the proper prices of produce as they were represented to be. Mr. Brooks spoke of the system of English farming in accordance with data which we fear has not been gleaned from a very reliable source, (as regards arable farming,) to prove that the farmers there made no more profit on the sum invested

than they did here. He also showed from national statistics that the corn crop of New England was more profitable to the farmer than that of Illinois to the producer there, as was also the raising of pork.

WM. J. BUCKMINSTER, of the *Ploughman*, was the next speaker. He made a defence of the farmers against the charge of ignorance of prices, and was interrupted by Mr. DAVIS, of Plymouth, who explained that the ignorance he had alluded to was that arising from the misrepresentations of forestallers. Mr. Buckminster proceeded to say that, while railroads, telegraphs and newspapers were so common, and so generally distributed, the explanation could not have its full bearing. Farmers were wide awake concerning prices, there could be no doubt; and if they did now and then make a mistake, it was no more than the dealers did. As further proof of farmers knowing what prices were, he found that he could not purchase some things at home—thirty miles hence—so cheap as he could do in Faneuil Hall market. Mr. B. spoke somewhat doubtfully about the proposal before the meeting; although he hoped it would be found otherwise.

Dr. LORING, of Salem, came here with some idea of opposing the scheme of market fairs; but, after hearing the arguments *pro et con*, he was constrained to believe that it was inevitably necessary that farmers should have some system in operation for their better protection and stimulation, and that the best means to adopt was the proposed fairs. Our farmers wanted a stimulus. They generally contented themselves with providing for a twelve months' existence, but give them market fairs and it would soon be otherwise, and there would be no longer depression, increasing waste lands, and general prostration of the agricultural interest. If fairs would not suit, what would? for stimulation was essential. It belonged to the opponents of the proposal to say what would substitute that scheme. Essex county was determined to try it until a better was suggested, although her farmers were aware of obstacles being in the way of their ultimate advantage. Every improvement in agriculture had had its opposition, and this one could hardly escape the same risk. For himself, he had no fear of its ultimate success, any more than he had doubts of its benefits, or of their universality over the Commonwealth.

Remarks were further made, touching on abstract details of the discussion, by Mr. Buckminster, Dodge, Davis, and others. The latter gentleman incidentally showed, practically, in what respects market fairs would prove beneficial—for that purpose taking a familiar view of matters as they now stood, as compared with what they might become were such fairs established.

It was suggested that the subject should be continued, and discussed next week; but arrangements having been made for that meeting, the suggestion was withdrawn. Next Monday, the matter discussed will be "DRAINAGE." Dr. G. B. LORING, of Salem, is expected to preside.

For the New England Farmer.

WORK IN THE LUNENBURG FARMER'S CLUB.

MR. EDITOR:—The following statements and experiments from the Lunenburg Farmer's Club are at your service. As there is much to learn about the measuring of corn, shrinkage, &c., it may be well for every Club to contribute something in regard to the different varieties raised, and the same may be said of the cereals, that a man may see in black and white the best kinds to use, and where they can be found.

It takes a long time to determine what kinds of apples will be the most profitable. After a man has tried many varieties, he will finally settle down on some that will pay the best. The different breeds of cattle, too, are being tried, and it is expected that some discoveries will be made in that branch of husbandry.

We think our Town Club has made some discoveries during the eleven years it has been organized, and we trust that the time has not been spent in vain. County societies may cut a wider swath on exhibition days, but the influence exerted is like the old adage, "Variety tends more to please than to instruct."

We trust the town clubs will receive something from the public crib in the shape of a few hundred a year; that, with what can be raised by the ladies, the county societies will look kind o' lank in a few years. Farmer's clubs are getting to be institutions which cannot be rubbed out any more than the common school, and it is believed they indicate the true mode of disseminating agricultural knowledge.

W. H. JONES, *Secretary.*

CYRUS KILBURN'S CORN CROP.

Mr. Kilburn said, the acre of land on which my corn was planted was in pasture in 1857 and covered to a great extent with rocks and stones, and produced mullen, hardhack, buttercup, moss and other weeds; the grass very short and scant, producing not half enough to pasture one cow. Last spring the rocks were blasted and hauled off the land; carted on about nineteen loads of green manure, spread and plowed it under with a side hill plow, harrowed and picked off the stones, furrowed the rows about four feet the same way it was plowed, applied four loads per acre of manure scraped from the barn cellar, including the droppings from the turkey roost, putting in about a pint in each hill. Planted about the 20th of May, with King Phillip corn, using the single corn-planter. Hoed twice, and let four plants grow in the hill; used a plow the first hoeing, and a plow cultivator the second. Cut up and stooked the same on the last of September; husked about the middle of October, and had 125 baskets sound corn, weight 50 lbs. each, exclusive of the basket. 100 lbs. of the ears,

equal to two baskets, was laid in a box to dry, and on the 15th January, 1859, the ears weighed 84½ lbs., and the shelled corn 70½ lbs.; measured 36¾ qts.,—one bushel, 4¾ qts.,—equal to 78.68 bushels by weight to the acre, and by measure, 71.77 bushels. The shelled corn was then spread on a sheet to dry in a warm chamber.

Feb. 4th, winnowed, measured and weighed the same carefully, without losing a kernel; measured one bushel, two qts.; 66 4-10 bushels to the acre by measure; weighed 66 lbs.; 73 37-56 bushels to the acre, by weight; showing a shrinkage of 34 per cent. from the ear at husking time to dry shelled corn. The corn stover when cut up was quite dead; the ears were hard and dry, much dryer than corn usually is when examined by committee.

A WHEAT CROP.

Martin Johnson said, my land was broken up in the spring of 1857, and 400 lbs. guano mixed with plaster, spread and cultivated in. Planted with corn the first of June. The crop did not amount to much, as the corn did not ripen well. In the spring of 1858 the land was plowed twice, and 160 bushels leached ashes and 300 lbs. guano were spread and cultivated in. Two bushels of China wheat were sown to the acre, and cultivator used to put it in. The land measured 304 rods, yielding 73 bushels, thresher's measure. It is a superior variety.

REMARKS.—You ought to have stated the time of sowing.

A CARROT CROP.

J. and J. T. Dunsmoor said, the land cultivated was a loamy subsoil, and contained 138¾ rods. It had been a hop field for seven years previous to 1857; that season it was sowed with wheat, and produced a good crop. In the autumn of the same year, 40 loads compost manure were put on and plowed in. In the following spring, the land was plowed and harrowed again, and the seed for the carrot crop was put in the 13th of April. Beds were made wide enough for four rows of carrots, and had the seed all taken, the yield would have been much larger. The variety sown was the Orange, and 800 bushels carrots and 100 of turnips were taken from the above mentioned land, at a cost of $75.

A POTATO CROP.

J. and J. T. Dunsmoor said, our field of potatoes contained 117½ rods on a reclaimed meadow, mud from three to four feet in depth. Plowed in the autumn of 1857, and harrowed thoroughly. In the spring, planted in hills three feet by two and hoed once. The droppings of the sheep-fold were used on this field, as it seems, to advantage. Potatoes of the Davis Seedling variety, cut small, with two pieces in the hill, producing 220 bushels.

A CORN CROP.

Joseph Goodrich said, my field contains 248 rods of land, by accurate survey. It was a piece of old pasture land that ferns, whortleberries, brakes and other small brush possessed, and never had been plowed until Dec., 1857.

In May following, the land was harrowed and the loose stones taken off. I then spread about twelve cart-loads of green stable manure to the acre, and cross plowed; harrowed the second time and furrowed one way, aiming to furrow four feet, but the ground being rough, there was much variation in width; applied about eight cart-loads manure to the acre, in the hills, which were placed from two feet to two and a half apart. This manure was loam saturated with the droppings of cows the summer previous. Planted the 12th of May a variety called the Carter corn, from four to six kernels to the hill. After the corn had come up, and previous to hoeing the first time, a spoonful of plaster was applied to the hill. It was hoed twice, and oxen were used to plow the corn. In August, a shower of hail did much damage to the crop, as, at the time, the kernel was setting, which reduced it considerably. A short time previous to harvesting, a drove of cattle broke into the field and destroyed several baskets of ears. The corn was cut up and stooked in the field September 25th, and stood ten or twelve days, when it was hauled to the barn and set up where the air could pass through it. In three weeks the corn was husked and two bushels of ears shelled, producing 43 qts., then spread under cover where the sun and air operated upon it ten or twelve days, and appeared as dry as corn generally is in January; then weighed the same, and found the weight to be 72 lbs. Quantity raised on the field, 241 bushels ears; weight of one bushel 36 lbs.; allowing 56 lbs. to the bushel, 154 13-14 bushels. By measure, when shelled, 162, nearly.

For the New England Farmer.

NATIVE AND FOREIGN STOCK.

MR. EDITOR:—In reading the remarks and suggestions in the Third Legislative Agricultural Meeting, I noticed a discussion about imported and native cattle. Mr. Asa G. Sheldon, of Wilmington, said there ought to be no distinction made between the breeds, but all should compete on the same level. This is right, as far as my experience extends. I will relate a circumstance which occurred at our Middlesex North Agricultural Society, in Lowell, last September. I entered a yearling heifer, native breed, for the premium. This heifer I raised, and gave a brief account of her keeping till the time she was entered for the premium When one year old, she weighed 650 pounds. When presented for the premium she was 17 months old, and weighed 884 pounds. She was handsome, and with all the qualities combined for a good cow; she is now 22 months old, and weighs 1052 pounds. But the committee never gave her a passing notice. The premium was awarded for a heifer weighing but 650 pounds, with a small sprinkling of foreign blood. Let the farmers take the same care of our native stock that they do of the imported, and in a short time our native stock will be far in advance of all others. S. R.

Westford, Mass, Feb. 15, 1859.

STRIKING CUTTINGS IN MOSS.—The variety used is called Sphagnum; it is the long moss found in loose and wet meadows, sometimes used by the farmer in lieu of ice to pack outside of butter boxes when brought to market. In pre-

paring this for rooting cuttings of plants in pots, it should be first thoroughly dried and then pulverized. After filling the pot they should receive a good watering before inserting the cuttings.

CONSERVATORY OF ART AND SCIENCE.

A meeting of about forty gentlemen representing the association of *Agriculture, Art and Science*, and various industrial, educational and moral interests of the city, was held February 18, at the Library of the Boston Society of Natural History. The meeting was organized by the choice of Hon. MARSHALL P. WILDER, as Chairman, and Dr. S. KNEELAND, Jr. as Secretary.

The Chairman stated that the object of the meeting was to take steps for memorializing the present Legislature for a grant of land belonging to the Commonwealth, in aid of a plan for a conservatory of art and science, and he invited the representatives of the different interests to state their views. A reading of the portion of the Governor's message, in which he refers to the value of the public land, and advises a certain disposition to be made of a portion of it, brought the subject fairly before the meeting.

Hon. A. H. RICE gave a sketch of the rise and progress of education in this community, and traced the connection between education and science, and the mechanical and fine arts; the highest development of knowledge among us was only an expansion of the common school system. He considered that some such plan as the one presented, for the enlargement and practical application of science in its various branches to the useful and ornamental arts of life, was imperatively demanded as an educational measure.

Prof. AGASSIZ spoke in favor of the plan, which he thought of great importance, as occupying the middle ground between abstract science and its practical application. Science, in the abstract, must go alone, not hampered with any considerations of practical application, assisting, but not interfering with each other; the moment they are combined in the same association, science must languish. Hence the importance of some institution occupying the ground of an interpreter between the two, which he thought the plan proposed would do.

Mr. M. D. ROSS said that the cause of the present movement was the fact that this unoccupied Back Bay land was in the vicinity of the city; in order to make valuable what now is mere water, it must be developed by the citizens, must be used for some purposes of public improvement.

Prof. AGASSIZ, in relation to the Polytechnic School, said that such an institution, intermediate between trade and science, was vitally important; they could not be combined in the same association—this he likened to the high schools, which are the necessary medium between the primary school and the university.

Rev. Dr. BLAGDEN expressed his approval of any plan which promises to develop the relations between science and art; such an institution as the one proposed, he thought, would elevate the intellectual standard of the community, and meet a great public want.

Dr. A. A. GOULD alluded to the frequency of such institutions in Europe, and thought they were imperatively demanded here.

J. D. PHILBRICK, Esq., President of the *American Institute of Instruction*, Gen. B. F. EDMANDS, Mr. GEORGE SNELLING, ZELOTES HOSMER, Esq., Mr. ALFRED ORDWAY, Rev. Dr. MILES, W. E. BAKER, Esq., AMOS BINNEY, Esq., all spoke favorably and earnestly of the plan proposed.

The Chairman remarked that a large space would be required for the exhibitions of the agricultural products. He alluded to the land bill now before Congress, which, if passed, would give the income of 220,000 acres of government land to Massachusetts to be devoted to an agricultural college, if the State would erect the building. Perhaps this income might be devoted to the furtherance of the agricultural department of this plan.

A committee, consisting of Messrs. Edmands, Ross, Baker, Wilder, G. M. Pratt, Samuel A. Gookin and A. Ordway, was appointed to prepare memorials to the Legislature in aid of the Natural History Society.

We regret that the crowded state of our columns prevents us from giving in full the remarks of all the gentlemen who spoke. The movement is an excellent one, and we shall be glad to aid it in any way in our power.

For the New England Farmer.

TURNIPS—ARE THEY WORTH RAISING?

The same land, with equal culture and manure, that will yield 500 bushels of turnips, will yield sixty bushels of Indian corn. What is the comparative value of these two products for the feed of stock? Neither of them will do well without some other feed—but when a proper quantity of hay is fed with them, either will do very well. My impression is that the corn will do the best, especially when the corn fodder is properly used in connection with the grain—and when properly cured and dealt out, it will be found to be worth half as much as so much hay. I am pleased to see the inquiries of Mr. Brigham, of W., on this subject. He writes as though he knew a thing or two. There are many farmers who could answer these inquiries in a satisfactory manner, if they would. Might it not be well to ascertain these things before another season of planting—and not go along entirely on the hap-hazard principle? ESSEX.

Feb. 13, 1859.

FORCING MELONS, &C.—One of the best methods we have found to raise early plants of the melon and cucumber under glass, is to take sods from three to five inches thick, soak them some twelve hours or more in liquid manure, and then plunge them *grass down*, into the bed, then insert three or four seeds in each sod, where they can afterwards be transplanted with the sod, without disturbing the roots.

For the New England Farmer.

TOWN ASSOCIATIONS.

MR. EDITOR:—I feel rather sleepy to-day, but not enough to prevent me from believing that you and others are striking the right key-note by advocating the formation of farmers' clubs and town associations. I trust that your State will move forward in this matter, so that Maine may follow after in the course of twenty years.

There are county societies throughout the State that give premiums, but these are usually received by two or three towns in the vicinity of the fair. The Androscoggin River runs nearly 50 miles through Oxford County, and has very many excellent farms its whole length, but they scarcely receive a dollar in premiums. The reason is obvious. It costs something to drive cattle, or to carry articles twenty or twenty-five miles to the fair, and be on expense for two or three days, and perhaps return without a premium. This is the case to a certain extent all over the State. What we want, is some plan matured in your State that shall equalize the benefits to be bestowed. Moving the fair about effects nothing. It seems to me that town associations must be established for this purpose. Many towns in Maine now have their town fairs. We had one last year, as on previous years. The stock, neighborhood teams, were very fine, and all the farm productions, and the ladies' contributions were in abundance. Committees were raised, and reports made, but without premiums. Everybody went home happy; yet we had, at the same time, State Agricultural and Patent Office Reports sufficient to have given every successful competitor a copy. Had we done it, the charm would have been broken. A few would have been satisfied, the rest would have grumbled. We chose to *give* away these books, where we thought they would do the most good. I acknowledge myself an earnest advocate of the farmer's interests, but these interests need equalizing all over the county. I admired the grit of a young man, a year ago, when at a club meeting the expense of raising potatoes was discussed, at the close of the meeting, he remarked, "I can show you next year that potatoes can be raised cheaper than *that*," and he did do it, by raising 1500 bushels the last year at one-half the expense estimated by some of his neighbors. He cared nothing about a premium.

You need, and so do we, a man to canvass the State, lecture and form clubs in every agricultural town. I have more faith in that agency, than in all the premiums the State can bestow. I would not overthrow the County or State societies; they would be the stronger, by the movement. Don't send a white-kidded gentleman among farmers, but an intelligent, practical, common sense man, such as will at heart sympathize with the farmer, and the work is done.

Now, Mr. Editor, I am fairly waked up, and will review what I have written. N. T. T.

Bethel, Me., Feb. 18, 1859.

REMARKS.—Glad you *are* awake, sir—wish there were ten thousand more in the same condition. Your hammer strikes right, and hits the nail on the head. The beneficial results of premiums, as now awarded, and of big cattle shows, as now conducted, are nearly at an end. There must be more personal effort, and less show and bluster, and less talk for "Buncombe." You must go to the neighborhood or home of the farmer, and excite him there, among his neighbors—excite them all, once or twice, and then they will excite each other. Cattle shows, properly conducted, are well enough for some things, but they are spasmodic, and do not go deep enough with the masses.

DECREASE OF WATER ON THE GLOBE.

At a late meeting of the British Association, a Mr. Galton read a paper by Mr. J. Spotswood Wilson, "On the General and Gradual Dessiccation of the Earth and Atmosphere." The writer drew attention to the fact that those who had travelled in continental lands, especially in or near the tropics, had been forced to reflect on the changes of climate that appeared to have occurred. There were parched and barren lands, dry river channels, and waterless lakes, and not unfrequently traces of ancient human habitations, where large populations had been supported, but where all was now desolate, dry and barren.

After quoting largely from the works of various travellers and writers, (among the latest of whom was Dr. Livingston,) and giving interesting descriptions of dried up rivers and desolate tracts of country in Australia, Africa, Mexico and Peru, which had formerly been inhabited by man, Mr. Wilson concluded that there was a gradual solidifying of the aqueous vapors, and consequently of water, on the face of this terrestrial world, which he inferred was approaching a state in which it will be impossible for man to continue an inhabitant. Yet, he added, we should feel satisfied with the prospect that the term of our occupation is not yet half expired. Races preceded us in the chain of existence, and there was no reason to suppose that others would not follow. Indeed, some of those that are destined to succeed seem to be already in existence, and have their home in the icy sea, where they enjoy a climate that exceeds man's endurance. Various considerations lead to the conclusion that the fitness of the earth for man may extend to a period much longer than that in which it has been occupied by him; nor will that term end till after the Polar bear, the walrus and the narwal have become inhabitants of the tropics.

For the New England Farmer.

SEA KALE.

I beg to say a few words upon the cultivation of sea kale, a vegetable of great excellence, and requiring but little care when a bed is once formed. It is perfectly hardy, grows on any light soil, requires no manure, indeed, it does better without it, and is perennial. It may be grown from seed or from the root, and fifty plants occupying a small space, will supply a small family. In its taste it resembles the cauliflower, and should be cooked in like manner, by boiling. It comes in season a month before asparagus, and may, by protecting the bed with a heavy

coating of straw or hay, a practice always to be recommended, be brought forward even in March. It is much better when it is blanched, and this is done by keeping the plants from the sun under pots, boxes or straw. The seed can be purchased at our seed-stores, or if not at all of them, at that of Curtis & Cobb, in Washington Street. Every farmer should have a bed of this vegetable for his own use, and our market-gardeners would find nothing more profitable to cultivate. P.

EXTRACTS AND REPLIES.

POTATOES FROM THE BALL.

In the fall of 1854 I saved a dozen potato balls (all from peach blows) and planted them in a seed bed the following spring, from which I dug about two quarts of 'small specimens" of every conceivable shape and color. There are over thirty distinct varieties—some very poor and much affected with the rot—others white, mealy and nice, and not much affected—some yield well, and are good sized, others produce just enough for seed, and little, watery, soggy things at that. I have planted such as I thought to be the most promising, and from my experience in the matter I am of the opinion that there will be a few among them that will prove productive and profitable.

I raised last year from a bushel and a half of these potatoes, thirty-five bushels of sound ones, on ordinary ground, without taking any extra pains with them. J. J. WATSON.

Orange, Vt., Feb. 7, 1859.

HOW TO CURE KICKING COWS.

In last week's *Farmer* I noticed an inquiry by a subscriber in South Weymouth for a remedy for a kicking cow. I have had many such, and have used various remedies, I have sometimes put a rope or small chain around the cow's body just back of the fore legs, and with a small stick, twist it quite tight. Occasionally it does very well. If the cow is not very bad, put a strap around the hind legs in the form of an 8, and draw it pretty tight. I had very good success the last season, in subduing some turbulent heifers, by applying a sort of ring with a spring to it, called a bull-holder, to the nose of the animal, and drawing the head pretty high; after a few lessons they generally give up. ABEL F. ADAMS.

Fitchburg, 1859.

A COMPLIMENT—BOOK-FARMING—USEFUL MANURES.

It is a paper which ought to be read by every farmer in New England. Many of the single articles it contains of themselves are worth the price of the paper. I am not one of those who declaim against book-farming, but am willing to receive instruction from any source. It seems to me that book-farming and practical experience can be made to harmonize. Who, in reading some agricultural journal, has not had his attention called to some valuable muck deposit, or other material, upon his farm, which may prove a mine of wealth or a bank from which to draw in time of need, rather than from the purse to pay for adulterated manures?

Again, the success of our farmers carefully noted down and laid before the public, has probably done much towards reclaiming *that* swamp, underdraining *this* wet field, sinking *those* boulders, and a hundred other like improvement.

By the way, I beg leave to differ from your correspondent from West Needham, where he says "there is no place more suitable for manure in winter than under the eaves of the south side of the barn." He seems to think that manure made in a barn-cellar is too strong for growing plants—but where is there not a chance for mellowing it with muck, forest scrapings, leaves, or even saw-dust, if too strong, and thus increase the farmer's bank, rather than diminish it by soaking eaves and washing showers?

Pottersville, N. H., Feb., 1859.

GARGET POISON TO HORSES.

Last May, one of my neighbors had a cow to which he wished to feed some garget, and to cut it used a hay-cutter, the one that they cut hay with for two horses; the result was, the horses got some small pieces of the garget, and they both died in a few days from the effects of the poison. I mention this for the good of the public, as I think there are many farmers who do not know that garget is a deadly poison to horses. A SUBSCRIBER.

Putney, Vt., 1859.

"SPARE THE BIRDS."

I have just met in Vol. X. of the *Farmer*, p. 306, a well-written article on this subject, which I refer to with the greatest pleasure, as it controverts the notions of Mr. N. Page, Jr., put forth with adroitness in the lately published transactions of the Essex Society. I admire to see the beautiful robin hopping and chirping about, and would not have them wantonly killed. I cannot agree with Mr. Page, that they deserve to be killed, because they pick a part, it may be the larger part, of currants, strawberries or cherries.

RULES FOR MEASURING LUMBER.

Can you inform me where I can get a log-book for measuring round timber of any size or length, or scantling? A book that will tell or give the measure of any kind of lumber?

Marshfield, Vt., Feb., 1859. C. H. LEWIS.

REMARKS.—The Text-Book of Modern Carpentry, published by Crosby, Nichols & Co., of this city, contains more that you want than any other book we know. We find very little on the measurement of timber in any of the mechanics' text-books.

MAPLE SUGAR.

I send you a sample of maple sugar made on the 18th of February. I tapped eight small second-growth trees on the 17th, from which I obtained eight pails of sap of the sweetest flavor. I do not believe any one in Vermont has got the start of me in making maple sugar this year.

Poultney Vt., Feb. 22, 1859. J. E. COBB.

REMARKS.—Excellent—excellent. Hope you have a good memory!

SALT AS A MANURE.

FRIEND BROWN:—I wish to know how salt is to be applied to the soil,—whether it should be mixed with barn-manure, or sown broad-cast? If mixed with manure, in what proportion? If sown, how much to an acre, at what season, and what kind of soil is most benefited by it? Would it be advantageous to use it when barley is to be grown? How would it affect pasture land? And further, I would solicit the opinion of some of your experienced correspondents on the profit likely to accrue from purchasing salt at 20 cts. per bushel for agricultural purposes.

Would you consider it profitable to buy air-slaked lime, at eight cents per bushel, to put on land? A. C. BUFFUM.

North Berwick, 3d Mo. 3d, 1859.

REMARKS.—We have often used salt as a fertilizer, but have not pursued the experiments with sufficient accuracy to make them worthy of note. So we refer to others, and find plenty of evidence that salt may be used profitably as a fertilizer where it can be obtained at low rates—where it is dirty or in a damaged state so as to make it unfit for common purposes.

Salt renders dry loams more susceptible of absorbing moisture from the air, and this is of great importance, because those soils which absorb the greatest proportion of water from the atmosphere, are always the most valuable to the cultivator. On heavy undrained lands it would not act beneficially.

When sprinkled slightly over manure heaps it checks the escape of the carbonate of the ammonia, and tends to prevent undue fermentation. It not only acts on vegetation as a stimulant, but serves as a direct constituent, or food, of some kinds of plants.

Applied to grain crops, on light soils, at the rate of 500 pounds to the acre, salt increases the produce of seed, and very much improves its weight and quality per bushel. On grass land and clover, salt has a good effect, rendering the herbage more palatable to stock.

Mangold wurtzel, manured with salt mixed with farm-yard dung, at the rate of ten or twelve bushels, or even more, per acre, grows luxuriantly. It would undoubtedly be useful on a barley crop, because the soil adapted to that plant, is the kind of soil most benefited by salt.

We do not doubt but that salt at 20 cts., and air-slaked lime at 8 cts. per bushel, would be profitable on land where they are actually needed.

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UNIVERSAL PLOW—BLOODY MILK—FLEMISH BEAUTY PEAR.

Do you know how the Universal Plow works on rocky and stony ground, whether greensward or old ground, rigged with the intervale mould? It looks in the cut as if it might work well. The Eagle of Nourse, Mason & Co., are of good workmanship and material, and in clear land, gauged to a certain depth, they work well—but in stony land they hold hard and don't turn well.

ANSWER.—We hear the *Universal Plow* spoken highly of—have used one to plow several acres of sward land, and find it to work admirably. It is quite probable that a shorter plow might work better on rocky land, than the Universal.

Bunches came on the teats of my young cow, and she gave bloody milk; I gave her garget, and the blood ceased to come, but the bunches remain. What shall I do for her?

ANSWER.—Give her six drops of the *tincture of Aconite*, on some meal wet up with water, every other day for ten days.

Do Flemish Beauty pears often crack? I had some that cracked so badly last year as to be worthless; they were on gravelly and stony land. One tree had lime, ashes and soap suds around it. A SUBSCRIBER.

ANSWER.—Are you quite sure that your pear is the Flemish Beauty? It has not the habit of cracking. This pear must be gathered earlier than most others, even before the fruit parts readily from the tree, and then ripened in the house. If left to ripen on the tree it becomes soft and flavorless, and decays soon.

—

HUNGARIAN GRASS.

Is it an annual plant, or is it of the nature of other grasses? Will you tell us all about the Honey Blade Hungarian Grass Seed?

Cambridge, Vt., 1859. GREEN GRASS.

REMARKS.—We have quite recently given an account of this grass. We have not grown it, but understand that it is an annual plant, requiring to be sowed every spring, like millet. The "Honey Blade" is a honied term to catch gulls with. Test it by the rod rather than by the acre—by purchasing and sowing only a few pounds of the seed at first.

—

ARE HENS PROFITABLE?

I make the keeping of hens more profitable than any other stock, compared with the capital invested. I feed my young chickens with corn meal four times a day, and plenty of skimmed milk. When old enough to lay, I give them all the corn and oats they will eat; with gravel, lime, and frequently cayenne pepper, mixed with their meal. Twelve hens will lay 142 dozen of eggs in a year, or 142 each, and I call that doing well—though they will sometimes do more.

East New Sharon, Me., 1859. A. R. HALL.

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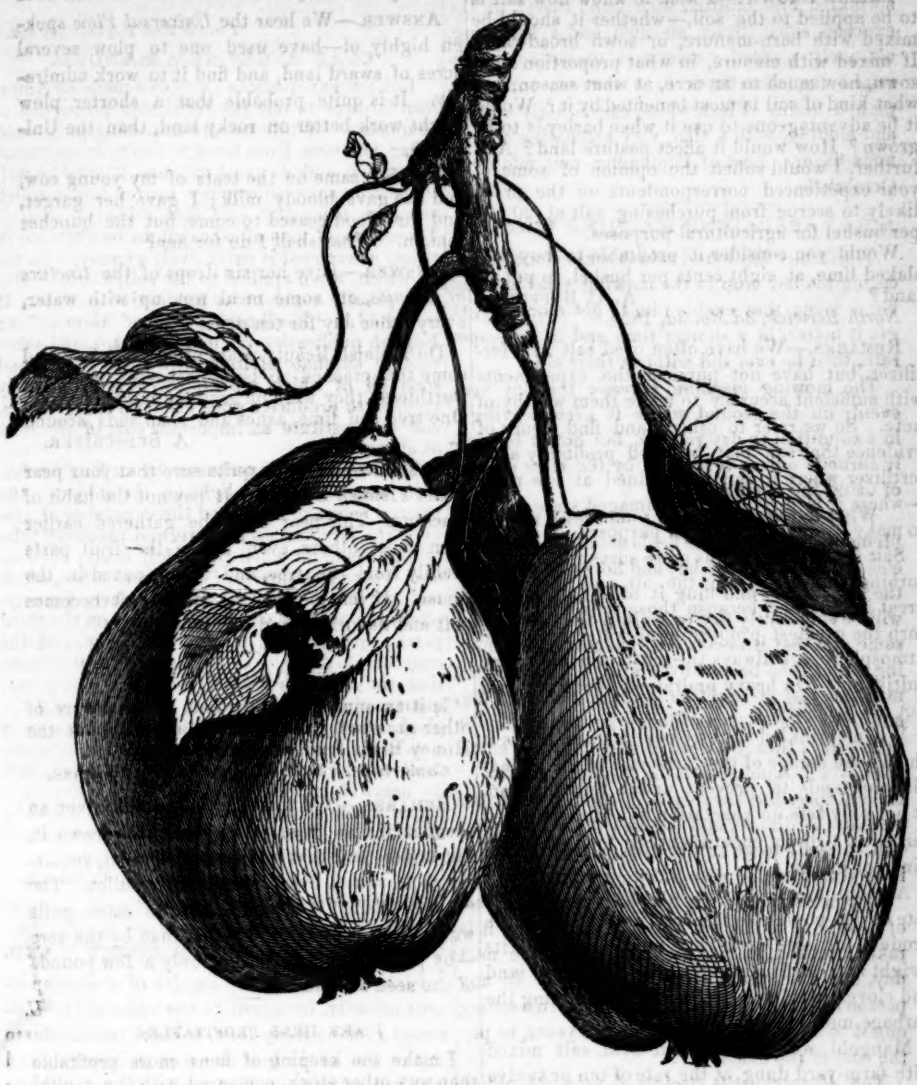
ARTICHOKES.

A correspondent of the *Cultivator* says that 2000 bushels of this root could be raised on one acre. I have no doubt of this, for from a single rather small tuber I dug in the fall nearly or quite one peck. This root threw up three stocks, yielding as above. I.



THE MARIE LOUISE PEAR.

FORME DE MARIE LOUISE.
MARIE CHRETIENNE.
PRINCESS DE PARME.
BRADDICK'S FIELD STANDARD.

In accordance with our promise at the commencement of the year, to illuminate our columns with choice illustrations of valuable subjects, we now have the pleasure of adding to others already given, the above beautiful and truthful portrait of the *Marie Louise Pear*—a pear "everywhere held in the highest estimation."

According to Downing's account, "this truly delicious pear was originated from seed, by the Abbe Duquesne, of Belgium, in 1809, and its fruit was first sent to England by Van Mons, in 1816. It was introduced into this country, along with many other fine Flemish pears, about 15 years ago, and is everywhere held in the highest estimation, keeping for a long time in the house. The tree is hardy, but has an awkward, rather crooked, and declining habit, and very narrow leaves. In the nursery it is best, therefore, to graft it standard high, when it soon makes a good head. The young shoots are olive-gray. It is a pear for every garden, bearing very regularly.

Fruit pretty large, oblong-pyriform, rather in-

regular or one-sided in figure. Skin at first pale green, but at maturity, rich yellow, a good deal sprinkled and mottled with light russet, on the exposed side. Stalk an inch and a half long, obliquely planted, sometimes under a slightly raised lip, sometimes in a narrow, somewhat plaited basin. Flesh white, exceedingly buttery and melting, with a rich, very saccharine and vinous flavor. Last of September and middle of October."

A HAY SPREADING MACHINE WANTED.

The farmer has found valuable assistance in securing his hay crop in the mowing machine, and horse rake; they enable him to get more hay, to get it better, in a shorter time and at a cheaper rate, than he ever did without their aid.

The mowing machine spreads the hay very evenly on the ground where it grew, leaving it in a condition to dry rapidly, but not to be easily turned, unless it is done by the slow process of using the hand rake.

What is wanted now, is, some light, cheap implement, to put into the fields about ten or eleven o'clock, A. M., with a boy and horse, to pass over the hay rapidly and fling it to the air, so that it will be sufficiently dry to go into the barn on the same day that it is cut. The process of hay making might then be,—cut the grass with a mowing machine just at night, or early in the morning, and by ten or eleven o'clock the top would be nearly dry; then, between eleven and two o'clock, pass over it rapidly with the "tedding machine," or hay spreader, keeping it in motion while the men are at dinner, and by two o'clock, the hay will be ready to go to the barn, provided the day is bright, attended with a drying wind.

Hay made in this way may be secured at a cost of about one dollar per ton less than where it is raked, cocked, partially spread again the next day, and then tumbled up and got in. To any person keeping a dozen head of stock, this saving ought to be sufficient, in one or two years, to pay the cost of the machine.

The *Massachusetts Society for the Promotion of Agriculture*, purchased an *English Tedding Machine* last year, and introduced it into Middlesex county. We saw it on the farm of Gen. Lyman, at Waltham, who had given it a thorough trial, and who expressed a decidedly favorable opinion of its merits, and of its adaptation to the same fields where the mower has been used. This machine is all iron, too heavy by one-half, and too expensive. Yankee ingenuity can devise one more simple in its construction, lighter, and cheaper, and yet strong enough to be durable, and do all the work required of it. Who will devise and construct it, and make $10,000 out of it? Here is a fine opening for inventive genius. Make a machine, and allow us to test its merits by the 25th of June.

For the New England Farmer.

COAL ASHES AS A MANURE.

But few experiments have been made by American farmers to test the fertilizing properties of coal ashes. While we are importing guano and other manures from foreign lands in enormous quantities, and at great expense, it may be well to employ some substances nearer home, which are now neglected and cast aside as useless. Thousands of tons of ashes might be obtained in cities, where coal is extensively employed for fuel, which, when applied to the soil, would doubtless greatly augment its productive powers. It is stated in "Faulkner's Farmers' Manual," an English publication on manures, that coal ashes contain sulphate of lime, with some potash and soda, all of which are known, when separately applied, to produce a good effect on clover crops, and to constitute an important part of the food of all grasses.

The following experiment by an English farmer, may shed some light on the subject; the ground selected contained three perches of clover; the first had no manure, and produced thirty-eight pounds when cut in full head; the second, where four quarts of sifted coal ashes, which had not been exposed to the weather, were applied, the produce was fifty pounds; on the third perch, one quart of plaster was sown, and the crop weighed fifty-four pounds. It will be seen that the ashes increased the clover nearly one-quarter above that on which no manure was applied, which goes to prove that this substance is a valuable fertilizer. Coal is said to be of vegetable origin; therefore, we can see no reason why its ashes should not contain the food of plants. Experiments on various soils and crops might be made by any farmer at a small expense, as coal is employed as fuel in nearly every town.

O. V. Hills.

Leominister, Mass., Feb., 1859.

UNIVERSAL PLOW FOR STONY LAND.

Since replying to the inquiry of a correspondent recently, in regard to the value of the *Universal Plow on stony land*, we have taken pains to call on one of the best plowmen in New England who was among the first to use it, and with the various mould-boards before us, had a long "plow-talk" over them, and could not fail to come to the conclusion that the *upland* mould-boards of the Universal Plow adapt the instrument peculiarly well to the plowing of rough and stony *grass lands*.

They have a short and powerful curvature or *twist*, which enables them to turn the sod well among stones.

They are quite broad on the bottom and at the heel, so that they spread the furrow-slice well, and prevent stones from rolling back into the channel and bringing the furrow-slice back with them, grass-side up. Whatever the share enters un-

der and lifts, the mould-board is quite sure to spread off and turn over effectually.

The share has a good strong *dip*, or earthward tendency, which enables the plow to enter readily under the furrow-slice, and among the stones, to hug the ground well.

The proportions of length of beam to weight of plow are such as to balance the instrument well, and make it run true, without jumping when the share strikes a stone or other obstacle.

The stubble mould-boards of the Universal Plow work excellently in old ground that is stony. They are short, with a strong turn and peculiar form, by which they lift the furrow-slice high and throw it off powerfully, burying the stubble and vegetable matter completely, and leaving a clean channel for the next slice, and breaking and pulverizing the soil.

The No. 141 upland is the right mould-board to buy for plowing stony grass land, where the team is two to three cattle; and the No. 152 stubble mould, for a pair of horses or oxen in plowing old ground. That makes two changes. A third and excellent change is had by procuring the skim plow and using it on forward of the No. 152 stubble mould, for sod and subsoil plowing, working the land 8 to 10 or 12 inches deep, as desired. The best form of mould-board for stubble or old ground plowing, is also the best for the rear mould-board in sod and subsoil plowiug, lifting the earth high and throwing it off well. The No. 152 mould-board does this to perfection. The No. 140 upland mould-board is a larger size than the 141, for two yokes of oxen. The No. 141 mould-board has been considerably used for plowing stony sod land, and the best reports are heard from it.

GLOBE MANGEL WURTZEL.

Mr. Brown:—A few weeks since I forwarded to you a few words on the Yellow Globe variety of Wurtzel, as cultivated in France, and having met with some remarks of an English farmer, commending this sort, I herewith send you the following extract:—

"With regard to this variety not producing near the weight of the long rooted, I would say that the result of my first trial in the same field and under precisely similar treatment as the long, was so much in favor of the Globe, that its merit with me and several who witnessed it was so far established, as to induce me to sow only sufficiently long, to produce an additional proof of its inferiority. In my case, the result is a decidedly increased quantity and quality. Added to this, its superiority as a keeper is unquestionable; the reason with me is obvious, for the virtue and quality of the root being concentrated in its globular form, whereas in the long, the want of that density and close texture renders it more exposed to the action of the air, which absorbs that portion of succulent matter indispensible to its proper keeping for the purposes of late feeding, in which its permanent value consists." The Orange Globe, (says another,) "is more nutritious." For the cultivation of the Mangel Wurtzel, see the *N. E. Farmer* for last May. I.

NATIVE SHRUBS.

In the culture of ornamental shrubs, but little attention has been given to our beautiful native varieties, such as the large flowering mountain laurel, *(Kalmia latifolia,)* Rhodora Canadensis, and Clethra anifolia. These three sorts rival in beauty many of our foreign or introduced shrubs. The *Kalmia* is not only found growing in a swampy or wet soil, but also on comparatively dry upland; its general height is from four to eight feet, the flowers are disposed in large corymbs at the extremity of the branches, and are of a white color, tinted with red. It blossoms in June and July. The plants, when taken up with a ball of earth attached and placed in a half-shady situation, not being exposed to the meridian sun, the soil rather moist, will generally succeed. They should be transplanted as early in April as possible. The *Rhodora*, or as it is sometimes called, "The False Honeysuckle," is a smaller shrub, with beautiful purple flowers which precede the leaves early in the spring; the bush, when in bloom, resembles a dwarf peach; its height is about two feet, and it is found growing frequently in clumps in low ground, but will flourish in almost all good soils that are not too dry. This shrub should be taken up as early in spring as possible, or late in the fall. The *Clethra*, called White Pepper Bush, is a tall and clean-looking white flowering shrub, having leaves of a rich and shining green, rarely injured by insects; the flowers have a strong fragrance resembling the Syringa or Mock Orange. We have often commended our cultivators to try this plant for hedges, particularly on moist or springy land, as it is invariably found in such soils.

RADISH—ONION.

A good method to pursue to obtain radishes free from worms, is to mix seeds of the Early Olive radish with that of the onion, sowing them together: that is, in a bed requiring two ounces of onion seed, mix one-half an ounce of the radish. We find that in pulling these roots, it does not seemingly interfere with or injure the onion. The onion we should sow, and would commend for table use, is the Early Weathersfield Red; it is milder flavored, and a more delicate variety than the Danvers Thick, or the Common Yellow, and altogether the best variety for eating; the root is of the form and size of the other varieties.

CHESHIRE COUNTY, N. H.

The people in Convention, comparing their experiences.

Another of the series of agricultural meetings instituted in Cheshire County, was held at Keene, Feb. 17, in the Town Hall. Gen. CONVERSE, President of the County Society, in the chair. The afternoon was devoted to a general discussion of the subject of *Manures*, and to that of *Wheat*,—the question upon the latter being, whether the farmer cannot raise the grain and supply himself with flour, at less cost than he can raise other articles, subject himself to the cost of finding a market, selling, and then, after paying three or four profits to those whose hands it has passed through, purchase what he needs for his family supply? No vote was taken upon the question, but judging from the remarks of the speakers, we came to the conclusion that the impression was a general one that the farmers of Cheshire County were working at considerable disadvantage in neglecting to raise wheat, and in purchasing so largely of flour. As an illustration of the amount of flour purchased in the towns, it was stated that in a single town in that State, where there was not a manufacturing establishment in the town, but where nearly all the people were engaged in farming, and the population only about fifteen hundred souls, *five thousand dollars worth of flour* was annually sold! And it was thought that about this state of things exists all over New England. It appeared by the statements made that there is no difficulty in obtaining remunerating crops of wheat in that region. Mr. GEORGE H. WRIGHT, of Keene, said he had always raised wheat, and got an average of fifteen bushels per acre, and found the crop as sure as any other. Mr. JAMES ELLIOT, of Keene, said he had raised *forty* bushels of wheat on a little less than one acre and a quarter! Col. ADAMS, of Fitzwilliam, rarely failed in getting a good crop of wheat; thought it as sure and profitable as any of our farm crops. Mr. BOYCE, of Troy, said he went into debt for a farm, raised wheat profitably, and soon brought the farm into condition to make it a sure and good investment of his labor.

The discussion of the subject of manures took a wide range—but the evidence was, that the farmer must mainly depend upon what can be accumulated on the farm through his own industry and skill in collecting, composting and preserving it; that this, more than all others, is the manure best adapted to the soil and the crops, and will secure to him the most successful and profitable results. Mr. MILAN HARRIS, of Harrisville, gave detailed statements of his experiences with guano, showing that on moist lands, with proper skill in its application, he had used considerable quantities with satisfactory results. But notwithstanding this, he candidly stated that he agreed in the opinion expressed by others, that the farmer must depend upon the resources of his own farm, and if he used the specific fertilizers, must use them as helps, rather than as principals. In this connection, Mr. S. W. BUFFUM, of Winchester, spoke of the importance of a better knowledge of our farm operations, and especially in *preparing the manures* upon which we are to depend for successful crops. He warmly urged upon the farmers more reading and careful investigation, and said no efforts they might make would pay better in the end. In these statements he was confirmed by the venerable JOHN PRENTISS, of Keene, who said that farmers, as a class, undervalued books, and that in the fifty years he had been a bookseller in that place, he had rarely sold a work treating upon agricultural matters to a farmer! The mechanic, the machinist, merchant and manufacturer, were eager to gather information from books, or any other source, but the farmer seems to have prejudices that are invulnerable. Mr. P. also detailed his plan of making up a manure heap by collecting leaves and all sorts of vegetable refuse, and composting them with matter from the cow and horse stall, depositing the mass under cover until it became quite fine, and then using it upon his garden crops. Mr. WOODWARD, *Editor of the Keene Sentinel*, spoke favorably of top-dressing mowing lands before the roots of the grass are exhausted, and thus make them continue to yield a ton and a half per acre for a dozen years in succession, instead of incurring the expense of re-seeding each five or six years.

In the evening, the meeting was much more fully attended. A lecture was read by the Editor of the *N. E. Farmer*, upon *some of the hindrances of good farming*, and upon its *social relations*, and then an animated discussion followed, which continued until past nine o'clock.

The next meeting of the series was held at Marlow, 17 miles from Keene, the next day, Friday, the 18th. Hon. ALLEN GRIFFIN was elected President, and Mr. LEWIS, Secretary. The *grass crop*, *manures*, *grain crops* and top-dressing were the subjects discussed. The President opened the meeting in an interesting speech upon practical topics, which operated as a key-note throughout. Messrs. ELLIOT, of Keene, DOWNER, Dr. PERKINS, Col. FARLEY and MESSER, of Marlow, related experiments or experiences in regard to one or another of these subjects. Mr. POWERS, of Marlow, said he brought land that was so poor that sorrel would not grow on it, into a high state of product by the use of *meadow muck*. The President confirmed this statement by saying that he often had occasion to pass the land referred to, and believed it to be one of the most

productive fields in the town. Mr. PARKER, of Marlow, made valuable statements in relation to the use of muck, and urged the people to give it more attention, and cited several things that had been said as showing the importance of such gatherings as these. He thought them just what is needed to improve the condition of New Hampshire farms. Mr. SIMONDS had used tan, he said, with excellent results—plowed under deep, it keeps the land light and porous, and he believed had some fertilizing properties.

The evening exercises were similar to those at Keene, and the Town Hall was crowded with attentive listeners until 9 P. M.

For the New England Farmer.

FEED OF MILCH COWS.

MR. EDITOR:—In looking over the "Transactions of the Worcester North Agricultural Society," for 1858, I have been a good deal interested in the record of some experiments, made by JOHN BROOKS, Jr., of Princeton, for the purpose of testing the relative value of different kinds of feed for milch cows. So far as one can judge through the manifold blunders of the printer—(you gentlemen of the press do sometimes make strange work—[It is strange there are not more. —Eds.] with types)—the experiments appear to have been tried with care; but they would have shown better the comparative milk and butter-producing qualities of the varieties of feed, if each variety had been given to the animals some days before the result was recorded, so that the trial should begin under the full influence of the feed experimented with; for in the daily record there is sometimes a large difference between the first and the last days of the trial, the effect of one kind of feed running into the next experiment. For instance, as to the amount of milk; one cow, during the trial of cotton seed meal, gave at the commencement, 10.94 pounds, and on the last day 14.19 pounds, showing a daily increase for the whole time. And with 15 pounds of English turnips daily, all the cows gave an increased amount of milk at the close; while, with the same quantity of rutabagas, directly following the English turnips, three of the four cows gave less milk at the end than at the beginning of the term—in one case a pound a day less. On the last day of trial with English turnips, the aggregate of milk given by the four cows was 37.37 pounds; with rutabagas it was but 34.50 pounds. This result conflicts with the common opinion in regard to the relative value of the English turnip and rutabaga; and perhaps it should not be received as settling any point in dispute; but, looking at the various aspects of the result, it certainly should not be set aside as worthless testimony in favor of the turnip. It is to be regretted that Mr. Brooks did not state which of the very numerous varieties of the English turnip was used in his experiments, as there is probably some difference in their value for feed.

I have made an abstract of some of the more important matters in Mr. Brooks' tables, which, perhaps, you will think of sufficient value to present to your readers. I take at random the cow Dora. The quantities of milk given, are the daily average for the whole term of five days for each experiment. She gave, when fed on

	Milk.	Cream.	Butter from 4 qts. milk.
	lbs.	pr. ct.	oz.
Hay only, 27.60 lbs.	8.33	1.66	10
Hay 22 lbs., cotton seed meal, 2.75 lbs.	11.51	1.87	12
Hay 24.40 lbs., Eng. turnips, 15 lbs.	10.59	1.71	11
Hay 23 lbs., ruta bagas, 15 lbs.	10.06	1.61	10
Hay 23.50 lbs., carrots, 15 lbs.	10.89	1.65	10
Hay 25 lbs., English carrots, 15 lbs.	10.38	1 68	10
Clover hay, 2nd crop, 28.40 lbs.	11.31	1.73	11
Hay 23.80 lbs., corn meal, 2.75 lbs.	10.46	1.67	10

In the following table may be seen the daily average for the four cows used for the experiments, with the average increase or decrease of milk during the time occupied by each trial. Does Mr. Brooks, by *English* carrot, mean the common *white* carrot?

	Milk.	Cream.	Increase of milk.
	lbs.	pr. ct.	lbs.
Hay only	7.34	1.64	.97
Hay and cotton seed meal	9.34	1.84	1.97
Hay and English turnips	8.93	1.70	.73
Hay and carrots	8.81	1.57	.53
Hay and English carrots	8.31	1.63	.29
Clover hay, 2nd crop	8.69	1.81	2.94
Hay and corn meal	7.82	1.68	.62
Hay and ruta bagas	9.07	1.61	.40 dec'e.

Mr. Brooks probably has convenient arrangements for experiments of this sort—will he not increase the obligation under which the farming community lies to him, by enlarging on his experiments, and bringing new articles of feed to the test? He can then do a great service to his brethren, while he is benefiting himself more especially.

MINOT PRATT.

Concord, Feb. 17, 1859.

FRUIT CULTURE.

The greatest desideratum, at this time, in the culture of the apple and pear, particularly the latter, is to ascertain for ourselves, on our respective soils, what varieties will succeed well with us, and cultivate these, as being the most remunerative.

Our fruit books generally do not enlighten us much on this important matter. One of the most practical cultivators of fruit and vegetables in England for almost a century, (having recently deceased at a very advanced age,) was John Rogers; he may be said to be the only writer who has given us scarcely anything upon the importance of the right soil for the various kinds; thus in his description of the St. Germain pear, he writes, "No tree thrives better on a light, shallow loam, on a dry bottom; and no pear is of less value, if grown in deep, rich, heavy soil." He speaks of apples "having local propensities, rendering them more prolific in one place than another," and continues, "deep, rich soils in sheltered situations, are not the most proper for the apple, though recommended by writers who ought to have known better."

When asked the cause of canker, he would reply, "that it is occasioned by too deep planting on unfavorable soils." Of the Quince apple, it should not be planted on a strong, moist soil; of another variety, should be planted in a light, sandy loam; of another, should be in the same, for though it arrives at a greater size, both of tree and fruit, in deep and rich loam, the fruit greatly deteriorates. The Nonpareil requires a light, rich loam, on a dry subsoil, for in heavy soils it soon becomes cankered and falls to decay. Of the Summer Golden Pippin, a light, loamy soil, on a dry bottom suits it best. Of Harvey's Pippin, this sort is not nice as to soil generally. Of the famous Ribston Pippin, which he calls the "Glory of York," he says, tree hardy, healthy and vigorous, if planted in a loamy soil, having a dry, hard subsoil; stiff, moist soil causes canker, while on inferior soils, even in bleak situations, the tree bears bountifully.

As regards the above extracts, it may be said that these effects may not necessarily follow in our country; but if they may not occur to such an extent on our soils, we cannot but think, from what we have observed here, that it will be found to be true in a measure, at least, on our New England soil.

For the New England Farmer.

HOW TO TREAT A YOUNG ORCHARD.

MR. EDITOR:—How would you advise to treat a young orchard of six acres, set at different times, since 1848? The land a rather poor, gravelly, sandy soil; a part abounding in stumps, having been cleared four years since. Previous to setting, holes seven feet in diameter, 18 to 24 inches deep, were dug and filled with top soil, loam, and in some cases, mud. The part first set has been kept in constant cultivation, moderately manured and cropped with corn, potatoes, beans, roots, &c. Distance from barn one half mile. The manure from the barn-yard can be used to good advantage, (is in fact needed,) on orcharding, mowing-fields and gardens nearer home.

Queries.—Would it be good policy to keep the ground plowed and harrowed, without manuring or cropping?

Would it be a good plan to sow buckwheat or some crop to turn in green?

Or would a slight manuring and cropping, (planting nothing within several feet of the trees) be on the whole better, economically considered, than either of the above methods?

In general, the growth of the trees thus far has been very good. Unquestionably, liberal manuring would be a capital idea; but where this is not readily obtained, it is natural to seek other means to gain the desired object.

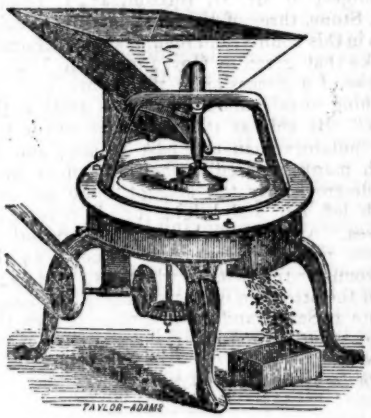
Lexington, Feb., 1859. SUBSCRIBER.

REMARKS.—As you have begun an orchard, and already expended considerable money upon it, it will be exceedingly bad economy to suffer it to depreciate. Our opinion is, that the trees should be kept in vigorous condition in preference to the mowing-fields near home. Let a portion of these go to pasture, or rest, if you cannot supply the whole with manure, and dress the orcharding so that the trees will continue to grow thriftily. They will not stand still—if they are not growing, they will soon become sickly, borers and other vermin will attack them, and they will soon acquire a habit of decay which you cannot arrest.

Plow the ground, manure it as well as you can, sow clover seed and cut the crop for two years; then cut the rowen, let it lay and wilt a day or two and plow that under, and you will fill the soil with vegetable matter from the roots of the clover. With a lighter manuring, the land may then be moderately cropt for a year or two, and then you may change to clover again. In this way the crops will pay for labor and manure, and you will get the growth of the trees free.

PORTABLE IRON GRIST MILL.

We know nothing, personally, of the merits of this mill, but give the illustration and description of a party interested, because we believe a good, low-priced mill is an article much needed by farmers. It is stated that "the grinding surfaces are flat like a burr millstone."



"The mills have been severely tested, and have been driven 600 revolutions a minute, grinding 12 to 15 bushels of fine meal an hour, without clogging, and thus demonstrating the fact that the principle of the mill is correct. The grain feeding directly upon the revolving under plate—the upper plate being stationary—is ground or cut as fine as is wished by regulating a screw at the bottom of the spindle, while the centrifugal force drives the meal to the outer edge and throws it off. These mills are constructed wholly of cast and wrought iron, are of great strength

and efficiency, with no springs or wood-work to get out of order. It requires little power or skill to run it. It will grind saleratus, cream tartar, white sugar, bones, grain, coffee, and as a chiccory and spice mill has no equal. Any part of it can be duplicated at small expense. The grinding surfaces are very durable, and can be duplicated when worn out at the expense of a single pecking of a burr stone, with no delay of the mill.

"There are two sizes; the small hand mill, suited to the wants of the farmer, is of sufficient power and capacity to do all his milling at home at his leisure, and saving in tolls enough in a short time, to pay for the mill.

"The large mill is of great strength and power, and can be driven by horse or other power to do great execution."

For the New England Farmer.

THE ONION MAGGOT.

Mr. Editor:—Reflecting upon the inquiry you made of me yesterday morning, I thought it might be useful to answer with more distinctness, in a form that you can make known to those seeking the information. Your inquiry was, as I understood it, Has any mode of destroying the maggot or worm that depredates upon the onion yet been discovered? My answer was, None, or none that has come to my knowledge.

The last season, I made particular inquiry on this subject of Mr. D. Buxton, Jr., I. Bushby and I. Stone, three of the most intelligent cultivators in this county, and their answer, uniformly, was like that given by Gov. Lincoln, in 1845, at the close of a discussion of the potato rot; the only thing certain about it is, "it is death to the potato." Be this as it may, I have never had better potatoes than this past season; and although many hundred bushels of onions have been destroyed by the maggot, there are still enough left fair and bright for all reasonable purposes. A still more blasting and mysterious influence pervades some fields, known as the black vomit or the rust; to which, two years ago, I called the attention of the savans of the Essex Institute at Salem, and induced them to view the premises; but their Report thereon has not yet appeared. J. W. Proctor.

South Danvers, Jan., 1859.

SQUASHES VS. PUMPKINS.

Cultivators often lose sight of the distinction between *species* and *varieties*, hence they recommend the "*importance*" of planting all the melon, squash and cucumber tribe of plants away from each other, with the idea that they will mix. The Marrow, Valpariaso, Hubbard and Acorn, called squashes, will mix with each other, and also with the Connecticut Field and hard-shelled pumpkins, but *not*, as we have ever found, with the crook neck, the last of which we consider the true type of squashes. This variety may have more affinity to the family of gourds; we have heard that it will degenerate if grown in connection with the bottle gourd; of this we know nothing personally. As for any of the above hybridizing with the melon or cucumber, if this should have possibly taken place, we think it doubtful whether the seeds from these abortions, (if they should have any,) would vegetate.

If the analogy in the animal and vegetable world hold good, they would not, any more than the eggs of the mongrel Canada goose crossed with our native bird, or a colt could be obtained from the mule.

BOYS' DEPARTMENT.

A STORY FOR BOYS.

"When I was six years old," says a well-known merchant, "my father died, leaving nothing to my mother but the charge of myself and two young sisters. After selling the greater part of the household furniture she had owned, she took two small upper rooms in W—— Street, and there, by her needle, contrived in some way—how I cannot conceive, when I recollect the bare pittance for which she worked—to support us in comfort. Frequently, however, I remember that our supper consisted simply of a slice of bread, seasoned by hunger, and rendered inviting by the neat manner in which our repast was served, our table always being spread with a cloth, which, like my good mother's heart, seemed ever to preserve a snow-white purity."

Wiping his eyes, the merchant continued:

"Speaking of those days reminds me of the time when we sat down to the table one evening, and my mother had asked the blessing of our Heavenly Father on her little defenceless ones, in tones of tender pathos which I remember yet, and which, if possible, must have made the angels weep, she divided the little remnant of her only loaf into three pieces, placing one on each of our plates, but reserving none for herself. I stole around to her, and was about to tell her that I was not hungry, when a flood of tears burst from her eyes, and she clasped me to her bosom. Our meal was left untouched; we sat up late that night, but what we said I cannot tell. I know that my mother talked to me more as a companion than a child, and that when we knelt down to pray, I consecrated myself to be the Lord's, and to serve my mother.

"But this is not telling you how neatness made my fortune. It was sometime after this that my mother found an advertisement in the newspaper for an errand boy in a commission store in B—— Street. Without being necessitated to wait to have my clothes mended, for my mother always kept them in perfect order, and although, on minute inspection, they bore traces of more than one patch, yet on the whole they had a very respectable air; without being obliged to wait even to polish my shoes, for my mother always kept a box of blacking with which my cowhides must be set off before I took my breakfast; without waiting to arrange my hair, for I had been

obliged to observe from my earliest youth the most perfect neatness in every respect, my mother sent me to see if I could obtain the situation. With a light step I started, for I had a long time wished my mother to allow me to do something to assist her.

"My heart beat fast, I assure you, as I turned out of W—— Street into B—— Street, and made my way along to the number my mother had given me. I summoned all the courage I could muster, and stepped briskly into the store, and made known the reason of my calling. The merchant smiled, and told me that there was another boy who had come in a little while before me he thought he should hire. However, he asked me some questions, and then went out and conversed with the other boy, who stood in the back part of the office. The result was, that the lad who first applied was dismissed, and I entered the merchant's employment, first as an errand boy, then as a clerk, afterwards his partner, until his death, when he left me the whole business, stock, &c. After I had been in his service some years, he told me the reason he chose me in preference to the other boy, was because of the general neatness of my person, while in reference to the other lad, he noticed that he neglected properly to tuck down his vest. To this circumstance has probably been owing the greater part of my success in business."

LADIES' DEPARTMENT.

THE HOOP FASHION.

Now, lest it should seem unkind to our good mothers, wives, sisters and daughters, (being of the masculine gender, and withal a physician, who of all men should be tender of female weakness,) we frankly confess that there are circumstances connected with female life, and seasons of the year, when moderately sized hoops may be worn with an augmentation of comfort and increase of health. But duty compels the statement that such cases are very rare in our climate. In very hot, dry weather, (of which we yearly have but little,) light hoops tend to raise the weight of skirts from the loins and lower portion of the back, and, consequently, take off, by admitting freer ventilation, a part of the warmth which at such a time must be uncomfortable, and lighten the dragging sensation resulting from the weight of the skirts, So much is readily conceded.

But, even then, the evil far overbalances this moiety of good. Constant care is necessary at every change of temperature, from hot to cold, and from dry to moist, lest this cooling process be carried too far, and the health of the wearers of these frames become endangered, or essentially impaired. No feeble person, or invalid, however, should risk this augmented ventilation at any considerable distance from home, even on a summer's day, unless she have a guarantee that the weather will not change during her absence.

So little has this gear to recommend itself even in summer. But what shall be said of it for winter? Then it is positively unsafe for health. It is true, some advantage can be devised against this wanton exposure of health and life in winter, by a much increased amount of under-dress. But these, again, aid in increasing the circumferential extension and clumsiness of the body, the former of which is by no means accommodating to the gentlemen, either on the narrow sidewalks in Boston, or in carriages, or cars generally; and the latter surely cannot be viewed favorably as a feminine recommendation by one of the other sex in pursuit of a partner for life.

But, seriously, there are most weighty objections against this now prevalent custom Of late an eminent physician abroad has raised his warning voice against this pernicious custom. He says, "he has no doubt but in the parturient chamber he has lost several patients who might have survived this critical period, had they not have been debilitated by colds, and irritations and inflammations induced by such a reckless exposure of female health as does, and must necessarily result, from such gear in winter, as hooped petticoats, fashionably called 'skirts.'"

If these are facts, and, from the nature of the case, we see no reason to doubt their truthfulness, there are weighty and ample reasons why such a system of dressing should be immediately changed for one safer and healthier.—*Dr. Wm. Cornell, in Happy Home.*

DOMESTIC RECEIPTS.

A SIMPLE PUDDING.—Boil a quart of milk, cut up some bread in small pieces and soak them in the milk for about half an hour; then add a table-spoonful of Indian meal, and a piece of butter the size of a walnut; sweeten well, and put in nutmeg and other spices. Bake about twenty minutes.

POMATUM.—Melt about half a pint of beef marrow, and add to it six cents' worth of castor oil, and three table-spoonsful of alcohol; scent to your fancy. First rend the marrow, then melt it and put in all but the perfume, and beat it until it becomes like cream; then add the perfume.

TO MAKE CREAM CHEESE.—The following are two recipes:—Take a quart of cream, or, if not desired very rich, add thereto one pint of new milk; warm it in hot water till it is about the heat of milk from the cow; add a small quantity of rennet (a table spoonful is sufficient;) let it stand till thick, then break it slightly with a spoon, and place it in a frame in which you have previously put a fine canvass cloth; press it slightly with a weight, let it stand a few hours, and then put a finer cloth in the frame; a little powdered salt may be put over the cloth. It will be fit for use in a day or two.

ANOTHER METHOD.—If cream is scarce, so that a sufficient quantity cannot be had at once, take a fine canvas bag, and pour as much cream as you may happen to have into it, adding additional small quantities twice a day, and, from its becoming naturally sour, the thin part of it will drain through the canvass, and the remainder will prove an excellent cheese. If one quart of cream can be had at once, and poured into a fine canvass bag, it will make a nice-sized cheese, and of course equally as good as those made by several small quantities added at convenient intervals. The cheeses made in this way are not fit for use so soon as those made with rennet.